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2nd INTERNATIONAL CONFERENCE ON
Multidisciplinary and Current Educational Research

23rd & 24th January, 2021 | Ayuttaya, Thailand

ICMCER – 2021

ORGANIZED BY

MAHACHULALONGKORNRAJAVIDYALAYA UNIVERSITY (MCU)

IN ASSOCIATION WITH

INSTITUTE FOR ENGINEERING RESEARCH AND PUBLICATION (IFERP)

ICMCER – 2021

2ND INTERNATIONAL CONFERENCE ON MULTIDISCIPLINARY AND CURRENT EDUCATIONAL RESEARCH

Ayuttaya, Thailand
23rd – 24th January, 2021

Organized by:

Mahachulalongkornrajavidyalaya University (MCU)
In Association with:
Institute For Engineering Research and Publication

RudraBhanuSatpathy.,

Chief Executive Officer,

Institute For Engineering Research and Publication.

On behalf of *Institute For Engineering Research and Publications (IFERP)* in association with *Mahachulalongkornrajavidyalaya University (MCU),*Ayuttaya, Thailand, I am delighted to welcome all the delegates and participants around the globe for the *"2ⁿᵈInternational Conference on Multidisciplinary and Current Educational Research – (2ⁿᵈ ICMCER – 2021)"* Which will take place from *23ʳᵈ– 24ᵗʰJanuary 2021*

Transforming the importance of Engineering, the theme of this conference is *"2ⁿᵈInternational Conference on Multidisciplinary and Current Educational Research – (2ⁿᵈ ICMCER – 2021)"*

It will be a great pleasure to join virtually with Engineers, Research Scholars, academicians and students all around the globe. You are invited to be stimulated and enriched by the latest in engineering research and development while delving into presentations surrounding transformative advances provided by a variety of disciplines.

I congratulate the reviewing committee, coordinator **(IFERP & MCU)** and all the people involved for their efforts in organizing the event and successfully conducting the International Conference virtually and wish all the delegates and participants a very pleasant stay at *Ayuttaya, Thailand.* I wish that the next conference will be held in person in the university campus.

Sincerely,

RudraBhanuSatpathy

Associate Professor Dr. Phraratsutaporn
Faculty of Education, MCU

On behalf of ICMCER-2021 organizing team, I am honored and delighted to welcome you to The 1st International Conference on Multidisciplinary and Current Educational Research (ICMCER-2021) to be held on 23rd – 24th January 2021 at Faculty of Education, Mahachulalongkornrajavidyalaya University with Institute For Engineering Research and Publication (IFERP), Chennai.

Any conference is intended for discussing lively and emerging issues of a particular educational domain and disseminating the awareness among other researchers and scholars. We have been witnessing the dramatic improvements in the field of Education and Multidisciplinary Technologies and applications. I hope ICMCER-2021 will become surely the most important International event and bring out latest trends in Multidisciplinary and Educational Innovation.

In order to provide an outstanding research level for the presentations at the conference, we have invited distinguished experts to participate in the program. We will have, plenary sessions by keynote speakers during 2 days of conference including the awards presentation during the closing session on the last day of the conference.

I hope ICMCER-2021 will make you to reflect yourself with state-of-the art and provide opportunity to discuss various educational issues and challenges including other sciences with multidisciplinary aspects.

With best regards,
Associate Professor Dr. Phraratsutaporn
Dean, Faculty of Education, MCU

Dr.Lampong Klomkul
Faculty of Education, MCU

Dear Delegates and Colleagues,

It is a great pleasure and an honor to extend my warm invitation to all esteemed delegates to our upcoming the 2nd International Conference on Multidisciplinary and Current Educational Research (ICMCER-2021) to be held on 23rd – 24th January 2021 at Faculty of Education, Mahachulalongkornrajavidyalaya University with Institute For Engineering Research and Publication (IFERP), Chennai.

The theme of ICMCER-2021 'Conference on Multidisciplinary and Current Educational Research' will underpin the need for participation in forums for collaborative Research and cooperation among individuals from a wide range of educational and technical backgrounds.

The ICMCER-2021 Conference will surely provide a wonderful debating platform for you to refresh your knowledge base and explore the innovations in education and multidisciplinary. The Conference will strive to offer plenty of networking opportunities, providing you with the opportunity to meet and interact with the educators and researchers.

We also look forward to your participation in oral presentations to share your educational research and multidisciplinary knowledge. I strongly believe that this International meet will provide a fantastic opportunity for global networking and fostering research collaborations within the worldwide innovation and education fraternity.

I hope you will join us for a symphony of outstanding Conference, and take time to enjoy the spectacular and unique beauty of Ayutthaya city and its surroundings.

With best wishes,

Dr.Lampong Klomkul , Conference Coordinator
Acting Director for Research, Information and Academic Services Division,
ASEAN Studies Centre, MCU

ICMCER -21

2nd International Conference on Multidisciplinary and Current Educational Research

Keynote Speakers

Prof. Dr. PhraRajapariyatkavi

Rector, Mahachulalongkornrajavidyalaya University, Thailand

The topic for Keynote Speaker

"Buddhist Integration in Educational Research for Life during COVID-19 Pandemic"

Biography:

Prof. Dr. PhraRajapariyatkavi (SomjinSammapanyo) was born in 1960 in the Thai province of Buriram. He obtained his B.A. in Pali Studies from Sukhothai Thammathirat Open University, his M.A. in Buddhist Studies from Mahachulalongkornrajavidyalaya University and his Ph.D. in Pali & Buddhist Studies from Baranas Hindu University in India. In 2018 he was appointed the Rector of Mahachulalongkornrajavidyalaya University after serving as Vice-Rector for Academic since 2006 and a professor and former Director at the International Buddhist studies college since 2013. His remarkable academic contributions are: Mahayana Buddhism: development and its essence (Thai edition, 2000), Buddhist Philosophy: essences and development (Thai edition, 2001), Buddhism and modem technology(Thai edition, 2002, Tibetan Buddhist Culture (Thai edition, 2004), Vajrayana's analysis (1994), Nargajuna with contractory of time, existence, and ill-existence (1995), Introduction to Vinayapitaka (1995), Philosophy of Madhyamika, (1997), Search of Logics in Tripitaka and Buddhist Literature (1997),Critics of Aristotle's middle path and Buddhist Majjhimapada of Theravada (1998). Apart from his scholarly contributions, he also engaged in translation works, namely, Development of Buddhist Ethics (1993), Karma and Rebirth (1992), Development of thoughts in the pattern of ancient Indian (1993), Basic Buddhist Views (1993), Philosophy of Nargajuna, (1993), Mahayana Buddhism (1993). He awarded the Inventor Advantage Award (Semadhammacakkara), a kind of encouraging Buddhist Education, in the field of Buddhist book writing.

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Suneena Rasheed currently works as the Rector of the Avid College. She is a teacher educator, a researcher, who deeply passionate about teaching and supervising post-graduate and undergraduate research students. Her research interest is on teacher education, and her PhD was focused on Teaching Practicum. She has a strong desire to motivate academicians to disseminate research works and to establish a research culture in the Maldives.

She is a member of Association of Scientists, Developers and Faculties (ASDF) and alsothe Deputy Editor of EPS Ha'ndhaan Magazine. She has filled several posts in Government, Private Sector and Non-Governmental Organization during the period 2001-2020. Those include,Vice President of EPS Foundation; Deputy Minister to the Ministry of Gender and Family; Educational Consultant (Practicum) in Faculty of Education at the Maldives National University (MNU); Editorial Consultant and Reviewer of the Maldives National Journal of Research (MNJR);Research Supervisor (for both undergraduate and post-graduate student); Dean, Faculty of Research and Innovation, Avid College; and Deputy Vice Rector, Avid College.

EDUCATION & CREDENTIALS
Rector: Avid College, Republic of Maldives.
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2nd International Conference on Multidisciplinary and Current Educational Research

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ICMCER – 2021

2nd International Conference on Multidisciplinary and Current Educational Research

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Papers

Guidelines to improve public service administration for Thailand reform: Reflections from the Northeast

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Abstract— This research is based on a synthesis from a reconciliation forum for the country's reform in Khon Kaen province, northeast Thailand. The purpose of the study is to identify conflicts and development issues in the area; investigate the need for reform in various sectors at both local and national levels, and explore alternatives or guidelines to improve public service administration for the country's reform. Data was collected using qualitative research tools including focus group, dialogue, and open-ended questionnaires. The target groups consisting of 3,200 people who is living in Khon Kaen province and other 204 professionals consisting of 61 representatives from the government sector, 39 from the private sector, 33 from education sector, 22 from in the political sector and 49 from civil society sector. The results revealed that in order to diminish conflicts, reconciliation must occur at both the community and the national level. In addition, many aspects of public service administration and public policy must also be reformed; especially those involved in politics and political institutions, ethical standards of politicians and government officials, Criminal Justice System and administration, systematic corruption, education system, economic structure and income distribution; information and data management, as well as other issues stem from inequality in the society.

Index Terms— Thailand Reform, Public Service Administration, Reconciliation

I. INTRODUCTION

Due to the political turmoil in the country since 2009 , especially in late 2013 when there was a demonstration to overthrow the government, violence has been continuously provoked all over Thailand and resulted in casualties and the loss of property of citizen and government agencies. During pre-election week in January 2014, violence between the pro and the anti-government protesters was escalated into riots where bombs and war weapons were used to injured and killed citizens including women and children. The damage caused by this violence has organizations such as the Human Rights Commission, Human Rights Watch, UNICEF, as well as institutions working on human rights and peace studies across the country to issued statements seeking for reconciliation and peace talk [1] These efforts not only failed miserably but the conflict had also seemed to expand wider, especially as each party called for their supporters' uprising during the election week.

Finally, on May 22, 2014, the National Council for Peace and Order (NCPO) led by General Prayut Chan-o-cha had staged the coup attempting to gain the administrative power before the situation escalates out of control and cause a broader impact both economically, socially and politically in all sectors. In this effort to control the societal conflict and achieve reconciliation, Head of the NCPO General Prayut Chan-o-cha has emphasized the three-phase roadmap and timeframe for administering the country. During the first phase, General Prayut stated that provisional measures will be introduced to deal with the national reconciliation process in preparation for national reform. In the second phase, after the enforcement of the interim constitution in July, the reform will be conducted in all areas involves such issues as the prevention and suppression of corruption, politics, high-level administrative processes, the exercise of power, the justice system, independent organizations, energy, mass communication, education, morality and ethics, economic and social equity, and access to natural resources. The

reform process will begin after the formation of a government, the National Assembly, and the National Reform Council. And in the third phase, after the permanent constitution is in effect, Thailand may once again be regarded as a nation governed by a democratic administration, with His Majesty the King as Head of State [2].

During the first phase of national reform which involves the establishment of the National Legislative Assembly and the National Reform Council, the formation of a government, and the drafting of a new constitution, reconciliation forums for the country's reform were organized throughout Thailand in order to identify and seek options for reconciliation and peace, and to guide that choice in direction of national reform based on the needs of people of all sectors [3]. For the Northeast region of Thailand, a forum for reconciliation was organized at the sub-district administration and at the municipality of Khon Kaen Province.

II.PURPOSE OF THE STUDY

This research is based on a synthesis from a reconciliation forum for the country's reform in Khon Kaen province, Thailand. The purpose of the study are to identify conflicts and development issues in the area; investigate the need for reform in various sectors at both local and national levels, and explore alternatives or guidelines to improve public service administration for the country's reform. The findings of this study will offer suggestions to The National Reform Council and the Constitution Drafting Committee to resolve the root cause of conflict in various aspects such as in politics, economic, social matters, the environment, and the judicial process.

III.RESEARCH METHEDOLOGY

Data was collected using qualitative research tools including focus group, dialogue, and open-ended questionnaires. The target groups consisting of 3,200 people who is living in Khon Kaen province and other 204 professionals consisting of 61 representatives from the government sector, 39 from the private sector, 33 from education sector, 22 from in the political sector and 49 from civil society sector.

IV.RESEARCH FINDINGS

Findings include participants' understanding, attitude, and suggestions synthesized from the outcomes of reconciliation forum organized in Khon Kaen Province can be summarized into various aspects as follows:

Politics and Democracy

Majority of the representative samples still do not really understand the real essence of democratic government and democracy. Political parties are not strong and the electoral votes can be bought at all levels: therefore the lack of competent politicians to run the country and populist policies are often emphasizes in political campaigns. The result also shows that people in the northeast area of Thailand still does not truly understand the roles and duties of politicians and still have a political culture that is attached to the patronage system. Many of the participants revealed that they are fully comfortable with the fact that politicians lack morality or even corrupt as long as the benefits are mutual.

Patronage system and conflict of interests

Majority of forum participants understand that politicians at all levels and high-level government officials are affiliated under the patronage system. Politicians will form allies in administration agencies in order to exploit public resources. This can be seen as a pyramid of ethical problems in which the ill ethics of leaders descending to the lower levels, causing the moral system to decline. The problem of corruption is perceived as widespread and difficult to fix although conflict of interests is acceptable if some benefits are spared for the public.

Criminal Justice System and Juridical Process

Over the years, Thailand's criminal justice system and juridical process has been subject to criticism about its double standard, unfairness, and discrimination. Participants' had thought of the Court as prejudiced and brought the Court to the level of local politicians or civil servants, who the public disdains for their alleged self-interest. Public sector agrees that the legal process in Thailand tends to be slow and litigants or other third parties sometimes affect judgments through extra-legal means, while businesses admit that irregular payments and bribes are commonly offered in order to obtain favorable judicial decisions. In addition, other courts that are political and politicized, such as the Constitutional Court, have also lost public trust, especially when the Constitutional Court has taken politically decisive verdicts that went against one side and favored the other. The whole judiciary, in short, does not inspire confidence among the Thai people.

Public service administration and public policy

Corruption among public officials, fueled by low wages and a cultural inclination to accept gifts as a natural part of "getting things done" are cited as the most problematic factors for inefficient government bureaucracy and government instability. Majority of the interviewee

agrees that the country's public administration structures are duplicated or overlapped between regional and local agencies, causing conflicts and non-coordination between government agencies in central, regional and local government organizations. The responsible organizations and officials in public policy formation and implementation process lacks of ethical standard not only hinder effectiveness in public service provision but also lead to other moral issues while penalties for corrupted government officials and politicians are relatively weak.

Education System

Two main problems of Thai education system expressed in the forum are poor quality of education and education inequality. The current curriculum was not effective while the teaching patterns of each school are inconsistent. Parents tend to send their children to study in the city, forcing students to travel to school for longer distances and causing small schools in rural area to close down. Teachers lack student-centered teaching skills and current curriculum does not focus on students being self-reliant. In addition, the indicators of educational quality were misplaced; emphasizing heavily on the teachers' amount work instead of the academic performance of the student.

Economic Structure

The Thai economy is troubled on both the demand and supply sides. Domestic consumption is plagued with a high level of household debt and poverty causing labor migration to big cities. The gap between the rich and the poor are wide due to the inequality in income and wealth distribution. Prices of consumer goods and utilities are continued to rise while prices of agricultural products are lowered. Other economic issues that have been mentioned include foreign labor problem, minimum wage reconsideration, informal debt, unemployment, and small and medium-sized enterprises (SMEs) investment opportunity.

Data and information distribution

Participants of the panel agreed that news dissemination of the mass media nowadays has a great impact on attitudes and opinions of Thai society. Therefore, media presentations or dissemination of information in a favorable or supportive manner to a specific political group can definitely be perceived as a political campaign. Some of the media channels spreading fake news or using words that cause negative attitudes, resulting in more conflicts in society, were broadcasted without any warning from the responsible government organizations. There are also problems of data and information unequal distribution when the internet does not cover many areas of the country, especially in remote villages, and therefore some group of people do not have access to useful information which can be seen as a disparity in technology and information.

Natural Resource Management

Many issues concerning natural resource management were mentioned in the focus group and interview which includes the intensified invasion of public forests, parks, national forests, and illegal logging, the existing water supply is lacking in maintenance or development, causing problems in the use of water for human consumption and agriculture, repeated droughts, water pollution, soil deterioration, waste management, as well as the lack of people's participation in local resource management.

VI. SUGGESTION

From the discussions for reconciliation and reform of Thailand among community forums and professional groups in Khon Kaen Province, it can be briefly summarized as recommendations which require the most urgent actions for policy planning and reform of Thailand's public service administration as follows:

1) Political Process

1. The Recruitment for Political positions, at both national and local levels, must requires an election from the people, while the term in the office must be set and does not exceed two terms or 8 years consecutively.

2. A learning process and appreciation of democratic government must be enforced by requiring democracy and Thai political history along with Thai culture for the youths, from kindergarten to Higher education level.

3. There should be clear and concrete policies or measures that enable people to examine the operations of local government organizations and politicians at all levels, including measures to monitor the vote selling and buying process.

4. The definition of the reforms must be clear, accepted and recognized by people at all levels, and must be reviewed at every phase while the first and foremost short term goal is to have a transparent election. Mistakes, if any, must be accepted bravely by the involving officials.

2) Ethical Standards of Politicians and Government Officials

1. A process to recruit and screen politicians and government officials at all levels must be reconsidered.

Moral and ethical principles must be emphasized as a key element in the consideration while patronage system must be eliminated.

2. The quality of Thai civil servants and politicians must be developed to have a sense of working for the public and common interests at heart; not just taking advantage of temporary power

3. The problem of corruption at every level must be resolved urgently and must be perceived as an important agenda of the nation reform. Enforcement of severe penalties must be enacted in order to set the example and change this deep-rooted political culture.

4. An independent organization or special mechanism should be established to conduct ethical background checks among a politician or government official before taking any position in the office.

3) Criminal Justice System and Administration

1. Rebuild the people's faith in courts and justice system by eliminating the loopholes and corruption in law enforcement, criminal litigation, and all the process of taking legal action.

2. Procedures in the judicial process should be simplified, shortened, and must be accurately and transparently execute.

3. Lawyers, attorneys, barristers, and other law enforcement officers need to understand and adhere to the principles of law to the same standards in order to establish a fair judicial process.

4. Cultivating the mindset of the people to respect the law rather than making new laws and fail to enforce them.

4) Public Management

1. People participation must be emphasized in public administration at all levels

2. Central government should consider decentralization in the form of Self-Governing Province to create self-reliance development among local administrations.

3. Simplify bureaucratic system by removing cumbersome procedures and repeal backward or irrelevance laws and regulations in public service provision.

4. Governments should not overlook the voices of the people in public affairs and should encourage citizen's engagement in the decision-making process, such as in public hearings.

5. Government agencies need to be modified to work in a more proactive manner to keep up with the increasingly complex and diverse needs of people and to keep pace with the competitive adaptation in the globalization era.

6. Human security issues should be valued as the country's top priority, especially the employment opportunities and the appropriate welfare for people with disabilities and the elderly.

5) Education System

1. Promote fair and equal access to education at all levels especially the basic education that should be accessible without any restrictions.

2. The Ministry of Education should pay more attention to the qualification of the teachers and examine the quality teachers more frequently by giving examination or establish the measurements for teacher's assessment. For teachers who do not pass the standard, the rule of retirement before 60 years old should be open to be applied.

3. School semesters in Thailand should be based on the agricultural harvest season rather than relying on other ASEAN country conditions. Not only because the culture differences between each nation, but also because the differences of the environment and seasonal change. More importantly, parents will then be able to have more time with their children off the harvest season.

4. Incentives, welfare, and fringe benefits of teachers and support personnel in all levels of education must be increased equally, fairly, and compatible with workloads and cost of living.

6) Economic Structure

1. The government must set up an agency responsible for determining the prices of important agricultural products such as rice, cassava, and other seasonal crops. In which farmers can take part in their own product price setting while reducing the middleman influences in the agricultural trade.

2. Improve land policy and practices to mitigate land ownership inequality in order to deter the increasing number in landless or land-poor farmers in the country.

3. The government must establish economic policies to concretely link the industry to agriculture to create jobs and skills for agricultural workers.

4. There should be a process to increase small farmer's agricultural bargaining power in bargaining with entrepreneurs or traders in determining the fairer product pricing.

7) Data and Information

1. The government should have a clear and concrete policy to regulate the media that will lead to inciting conflicts by stricter enforcement of the law

2. The media has to reform itself in acting impartial, disseminating news and knowledge that is beneficial to the people in a straightforward manner.

3. People still lack information for business investments, especially the SME, which is considered a business investment that the state should encourage and support.

4. The government must extend Internet connection to cover all areas of the country so that all Thai can access information instantly and equally.

In addition, this study also reveals that people is hoping that religious organizations such as temples should get involve and play a role as a pacifier. In other words, religious organizations are expected to be responsible for guiding the society to a smooth reform, reduce social conflict, and reverts faith to the society in solving problems together as a Thai in a peaceful way. It is crucial that to reform a country following the NCPO's Roadmap, there must be an emphasis on building reconciliation between political conflict groups by raising awareness and mindset of reconciliation rather than enforcing a command reconcile. Long term peace needed to be established, not to be forced.

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Factors Affecting Customer Decision on Using Tabung Haji Service Center in Malaysia

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Abstract— The objective of this research was to examine the factors affecting the decision of choosing the Tabung Haji Service center in Malaysia. Questionnaires were used for data collection. The sample groups were individuals living in the state of Kedah, Malaysia. The statistics used for data analysis were frequency, percentage, mean ($\bar{X}$) , standard deviation (SD), and comparison test (t). -test) and one-way ANOVA analysis. It found most of them were male who are under 25 years old. They were single and hold undergraduate education. Their monthly average income was between RM1,201- RM2,000. The overall results of marketing mix factors were at a high level ($\bar{X}$ = 4.301 S.D. = 0.493). When sorted by the importance that the process aspect and the people aspect, they were at the most important level with the average score of 4.658 4.555 and standard deviation 0.435 0.445 respectively. The physical evidence, price, promotion, place, and product were at a high level. The mean score was 4.246, 4.236, 4.187, 4.133, 4.095 and the standard deviation were at 0.95, 0.363, 0.549, 0.580, 0.569, 0.514, respectively. There were significant influence of age, educational level, and monthly average income on the market mix factors of customers' decision to selecting Tabung Haji Service Center in Malaysia at a statistically significant level of 0.05.

Index Terms— Customer Behavior, Marketing Mix, Tabung Haji, Islamic Finance

I. INTRODUCTION

Islamic finance is based on a few simple rules which must adhere to justice is a financial system under the framework of Islam or Shariah principles with the fundamental principles of sharing risk and profit. Financial activities are prohibited on interest (Riba '), uncertainty (Gharar), and gambling (Maysr) [1] [2] [3]. The main Shariah which is called Fiqh Muamalat, is based on the Quran and Sunni. It can also be cited from other secondary sources of Islamic law, such as the opinions agreed upon by Islamic scholars (Ijma's), comparisons (Qiyas) and personal reasoning (Ijtihad) [3]. The establishment of Islamic financial institutions took place in the Indian subcontinent in the 1940s, which began with saving and lending interest free. It was followed by collecting financial for business organizations. One of the important pioneers in Islamic finance is to establish a pilgrimage fund committee in Malaysia in order to save money for expenses for the Hajj ceremony in Saudi Arabia [4]. The Islamic finance grows continuously. According to the report of Islamic Finance Development in 2019, Islamic finance industry's assets increased up to US $ 2.5 trillion in 2018 from US$2.4 trillion in 2017, which are up to 3 percent in Iran, Saudi Arabia and Malaysia. These countries are considered the largest grown country among 61 counties. Morocco, Cyprus and Ethiopia are the fastest grown country which the combined assets are more than US$500 billion [5]. The Islamic finance industry in Malaysia is characterized by a comprehensive market component from Islamic banking takaful, Islamic money market, and Islamic investment market. Malaysia is furthermore the main driving country in sukuk and bonds (issuance), with a market share of 51.0% and 36.2% respectively. At the end of 2017 in the banking sector, Malaysia possesses the combined assets of USD204.4 billion and is third place in the world after Iran and Saudi Arabia. Moreover, Malaysia remain a leader in the Islamic wealth management industry that is the key for Islamic funds worldwide with USD28.3 billion (36.5% global share) [6].

Tabung Haji (TH) is an agency established by the Malaysian government in 1963, under the Tabung Haji Act 1963 (Act 535) which is intended to facilitate the Muslims

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of Malaysia in performing Hajj. Tabung Haji currently manages more than RM25 billion in deposits (2016) both domestically and internationally by investing in a number of sectors such as Indonesia's plantation, Islamic Finance Information Technology, Oil and gas, services, substantial estate, and construction sectors in the UK and Australia with more than RM3 billion (2016) of net profit, which can provide a return to depositors. The Hajj Enterprise Fund is recognized around the world as an example of Hajj Management and financial services. It has more than 9 million depositors out of 125 locations with 6,000 service points nationwide.There is additionally a Hajj office in Jeddah, Saudi Arabia under the control of Consulate General of Malaysia [7]. TH is the one and only institution that enable Muslim to gradually save their money to perform the pilgrimage when their time comes. Muslims also save their money in TH for investment purpose as TH is guaranteed by the government that all of the savings will be run according to Shari'ah.

In order for the Islamic financial sector to be competitive and to ensure the vision of making Malaysia as global financial hub, it is important to have adequate advance planning in this area. Therefore, during the Seminar on the Ten-Year Master Plan for the Islamic financial services industry organized by the Islamic Development Bank (IDB) and the Islamic Financial Services Board (IFSB), the Malaysian Government has initiated the drafting of the ten years master plan for the Islamic financial services industry. Two important areas of focus namely, building institutional capacity and the developmentof the supporting financial infrastructure has been identified as the strategic element in the development of a progressive Islamic financial services [4].

Customers of today are more service-minded and they tend to expect better services from financial institutions. In order for TH to compete successfully with financial institue, TH must give extremely high consideration to their primary customers. Whenever TH offer any product or service, its success depends upon the customer satisfaction and customer behavior towards that product or service. This study examines factors affecting customers'decision on selecting Tabung Haji Service Center in Malaysia.

II. RESEARCH OBJECTIVES

The objectives of this research article were to examine s factors affecting customers' decision on selecting Tabung Haji Service Center in Malaysi

III. RESEARCH CONCEPTUAL FRAMEWORK

Customer behavior theory and theory of marketing mix (7P's) [8][9] that have been adopted in the conceptual framework. It can be summarized as a conceptual framework comprising various factors that affects the decision on selecting the Tabung Haji Service center in Malaysia as shown in Figure 1.
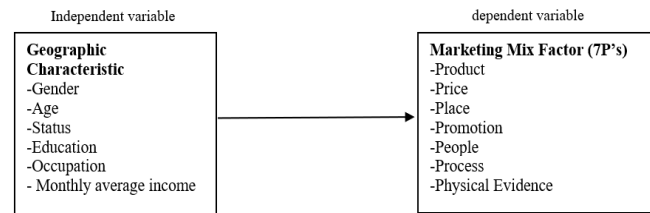
Fig.1 A Conceptual Framwork

IV. RESEARCH HYPOTHESES

There is a significant influence of the independent variables on dependent variable. In this study there are six hypotheses;

H1 : There is a significant influence of gender on marketing mix factors for customers' decision on selecting Tabung Haji Service Center in Malaysia

H2 : There is a significant influence of age on marketing mix factors for customers' decision on selecting Tabung Haji Service Center in Malaysia

H3 : There is a significant influence of status on marketing mix factors for customers' decision on selecting Tabung Haji Service Center in Malaysia

H4 : There is a significant influence of education on marketing mix factors for customers' decision on selecting Tabung Haji Service Center in Malaysia

H5 : There is a significant influence of occupation on marketing mix factors for customers' decision on selecting Tabung Haji Service Center in Malaysia

H6 : There is a significant influence of montly average income on marketing mix factors for customers' decision on selecting Tabung Haji Service Center in Malaysia

V. RESEARCH METHODS

A. Samples and Population

The population in this study was the customers of the Tabung Haji Service Center in Kedah State, Malaysia. The samples comprised the people who have experienced in using Tabung Hayi Service Center. The researcher defined the samples as a case where the exact population is unknown at the 95% of reliability level. The ideal samples were 385 samples with an additional 4% of backup data

was collected. The total samples would be 400 samples in order to reduce errors if there were incomplete questionnaires. The probability principle was used to divide the samples employing the coincidental sampling method [10]. The reason for selecting users of the Tabung Haji Service Center in Kedah State, Malaysia is that the state is near the border of Thailand. It has a similar social context and convenient access to information because the researcher is familiar with the context.

B. Research Tool

In this study, questionnaires were used. It was developed within the framework of objectives and can be divided into 3 parts as follows.

Part 1 Demographic data including gender, age, education, occupation, average monthly income.

Part 2 Marketing Mix Factors affecting decision on using the Tabung Haji Service Center in Kedah State, Malaysia. It is a questionnaire for estimating 5 levels with scores in each level as follows:

5 points mean that it is most important in choosing the service.

4 points mean that it is very important in choosing the service.

3 points mean that it is moderate important in choosing the service.

2 points mean that it is low important in choosing the service.

1 point means that it is the lowest important for the service.

Part 3 Recommendations There is a validity test under consideration by experts. Testing the reliability of 30 questionnaires showed that Cronbach's Alpha Coefficient was at 0.833 with a high level of reliability [11].

C. Data Analysis

Descriptive statistics are analyzed by using Frequency, Percentage, Mean, Standard, and deviation-SD to measure the distribution of data and to describe demographic data and the behavior of the respondents using the Tabung Haji Service Center in Kedah State, Malaysia. By interpreting Mean values, it will be interpreted as follows [12].

The average means score of 4.51-5.00 refers to the highest importance.

The average means score of 3.51-4.50 refers to the a high importance.

The average means score of 2.51-3.50 refers to the moderate importance.

The average means score of 1.51-2.50 refers to the low importance.

The average means score of 1.00-1.50 refers to the lowest importance.

Inferential statistics are used to test the hypothesis. The statistics used were a t-test, ANOVA analysis using F-test (One-way ANOVA).

.VI. RESULT

Demographic data of respondents found that most of them were male (63.0%), under 25 years old (45.8%), single (65.8%), hold bachelor degree (51.3%), students (33.3%), gained monthly average income between RM1,201- RM2,000 (33.8%).

Table 1 Mean and standard deviation o the level of significant of marketing mix factors influencing for customers' decision on selecting Tabung Haji Service Center in Malaysia

Marketing Mix Factors	$\bar{X}$	S.D.	Level of Importance	Rank
Product	4.095	0.514	important	7
Price	4.236	0.549	important	4
Place	4.133	0.569	important	6
Promotion	4.187	0.580	important	5
People	4.555	0.445	Very important	2
Process	4.658	0.435	Very important	1
Physical Evidence	4.246	0.363	important	3
Total of Marketing Mix Factors	**4.301**	**0.493**	**important**	-

From Table 1, the results show that the consumers value the overall marketing mix factor at a high level. The mean score was 4.301 with a standard deviation of 0.493. Sorting by importance, process aspect was the highest ($\bar{X}$ = 4.658 SD = 0.435), followed by personnel which is at the highest level of importance. ($\bar{X}$ = 4.555 SD = 0.445). The physical characteristics were at a high level ($\bar{X}$ = 4.246 SD = 0.363). The price was at a high level ($\bar{X}$ = 4.236 SD = 0.549). The market promotion was at the high level ($\bar{X}$ = 4.187 SD = 0.580). The distribution channel was at high level ($\bar{X}$ = 4.133 SD = 0.569) and product was at high level ($\bar{X}$ = 4.095 SD = 0.514), respectively.

A. The finding of Hypothesis Test

H1 : There is a significant influence of gender on marketing mix factors for customers' decision on selecting Tabung Haji Service Center in Malaysia

Table 2: Comparison of mean for marketing mix influence customer's decision on selecting Tabung Haji service center in Malaysia classified by gender (independent-samples t-test)

Gender	Mean	Std. Deviation	t	Significant	Result
Male	4.3056	0.268	0.017	0.063	not sig.
Female	4.2956	0.311	0.025		

Notes : * statistical significant level of 0.05

Based on table 2, the result shows that the significant influencing for customer's decision on selecting Tabung Haji service center in Malaysia was 0.063 which were greater than 0.05.

H2 : There is a significant influence of age on marketing mix factors for customers' decision on selecting Tabung Haji Service Center in Malaysia

Table 3: Comparison of mean for marketing mix influence customer's decision on selecting Tabung Haji service center in Malaysia classified by age (One-Way ANOVA)

	Sum of Squares	df	Mean Square	F	Significant	Result
Between Groups	1.055	4	0.264	3.337	0.011	sig.
Within Groups	31.212	395	0.079			
Total	32.267	399				

Notes : * statistical significant level of 0.05

In the table 3, the result shows that the significant effect of age on marketing mix factors for customer's decision on selecting Tabung Haji service center in Malaysia was 0.011 which were lesser than 0.05. Therefore, the researcher accepted H2. The LSD (Least Significant Difference) method can be used to test samples between groups that show differences in mean values. The results show that there are three groups had a significant difference between those with the age less 25 years old and those with the age between 36-45 years old (mean difference = 0.132, sig.= 0.005) then, the age between 26-35 years old and the age between 36-45 years old (mean difference = 0.168, sig. = 0.001) finally, the age between 36-45 years old and the age between 46-55 years old (mean difference = -0.219, sig. = 0.021). The mean difference is significant at the 0.05 level.

H3 : There is a significant influence of marital status on marketing mix factors for customers' decision on selecting Tabung Haji Service Center in Malaysia

Table 4: Comparison of mean for marketing mix influence customer's decision on selecting Tabung Haji service center in Malaysia classified by marital status (One-Way ANOVA)

	Sum of Squares	df	Mean Square	F	Significant	Result
Between Groups	0.462	2	0.231	2.881	0.057	not sig.
Within Groups	31.805	397	0.080			
Total	32.267	399				

Notes : * statistical significant level of 0.05

According to the table 4, the result shows that the significant influence of marital status on marketing mix factors for customer's decision on selecting Tabung Haji service center in Malaysia was 0.057 which were greater than 0.05. Therefore, the researcher rejected H3. The LSD (Least Significant Difference) method can be used to test samples between groups that show differences in mean values. The results show that a significant difference between single and married (mean difference = 0.069, sig.= 0.0021) The mean difference is significant at the 0.05 level.

H4 : There is a significant effect of level of education on marketing mix factors for customer's decision on selecting Tabung Haji service center in Malaysia

Table 5: Comparison of mean for marketing mix influence customer's decision on selecting Tabung Haji service center in Malaysia classified by level of education (One-Way ANOVA)

	Sum of Squares	df	Mean Square	F	Significant	Result
Between Groups	2.203	4	0.551	7.238	0.000	sig.
Within Groups	30.063	395	0.076			
Total	32.267	399				

Notes : * statistical significant level of 0.05

According to the table 5, the result shows that the significant influence of level of education on marketing mix factors for customer's decision on selecting Tabung Haji service center in Malaysia was 0.000 which were lesser than 0.05. Therefore, the researcher accepted H4. The LSD (Least Significant Difference) method can be used to test samples between groups that show differences in mean values. The results show that there are five groups had a significant difference between those with primary school and those with more than master degree (mean difference = 0.302, sig.= 0.007) second, between high school and more than master degree (mean difference = 0.225, sig. = 0.007) third, the level of education between diploma and bachelor degree (mean difference = 0.072, sig. = 0.022) forth, the level of education between diploma and more than master degree (mean difference = 0.241, sig. = 0.000) finally, the level of education between bachelor degree and more than master degree (mean difference = 0.168, sig. = 0.000). The mean difference is significant at the 0.05 level.

H5 : There is a significant influence of occupation on marketing mix factors for customer's decision on selecting Tabung Haji service center in Malaysia

Table 6: Comparison of mean for marketing mix influence customer's decision to selecting Tabung Haji service center in Malaysia classified by occupation (One-Way ANOVA)

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	Sum of Squares	df	Mean Square	F	Significant	Result
Between Groups	2.203	4	0.551	7.238	0.000	sig.
Within Groups	30.063	395	0.076			
Total	32.267	399				

Notes : * statistical significant level of 0.05

Based on table 5, the result shows that the significant influence of occupation on marketing mix factors for customer's decision on selecting Tabung Haji service center in Malaysia was 0.000 which were lesser than 0.05. Therefore, the researcher accepted H5. The LSD (Least Significant Difference) method can be used to test samples between groups that show differences in mean values. The results show that there are four groups had a significant difference between those with housewife and those with self-employed (mean difference = -0.153, sig.= 0.0 21) second, occupation between goverment staff and self-employed (mean difference = -0.133, sig. = 0.008) third, occupation between self-employed and pensioner (mean difference = 0.163, sig. = 0.044) finally, occupation between self-employed and student (mean difference = 0.134, sig. = 0.007). The mean difference is significant at the 0.05 level.

H6 : There is a significant influence of average montly income on marketing mix factors for customer's decision to selecting Tabung Haji service center in Malaysia

Table 7: Comparison of mean for marketing mix influencing customer's decision to selecting Tabung Haji service center in Malaysia classified by monthly average income (One-Way ANOVA)

	Sum of Squares	df	Mean Square	F	Significant	Result
Between Groups	1.707	4	0.427	5.516	0.000	sig.
Within Groups	30.560	395	0.077			
Total	32.267	399				

Notes : * statistical significant level of 0.05

Table 7 show the result of the significant influence of average monthly income on marketing mix factors for customer' decision to selecting Tabung Haji service center in Malaysia was 0.000 which were lesser than 0.05. Therefore, the researcher accepted H6. The LSD (Least Significant Difference) method can be used to test samples between groups that show differences in mean values. The results show that there are five groups had a significant difference between those with average monthly income less than RM1,500 and those with average monthly income between RM1,501 - RM3,000 (mean difference = 0.894, sig.= 0.0 12) second, average monthly income less than RM1,500 and average monthly income between RM3,501 - RM4,500 (mean difference = 0.173, sig. = 0.000) third, average monthly income less than RM1,500 and average monthly income between RM4,501 - RM6,000 (mean

difference = 0.156, sig. = 0.001) forth, average monthly income between RM3,001 – RM4,500 and average monthly income more than RM6,000 (mean difference = -0.155, sig. = 0.005) finally, average monthly income between RM4,501 – RM6,000 and average monthly income more than RM6,000 (mean difference = -0.139, sig. = 0.016) The mean difference is significant at the 0.05 level.

VII. DISCUSSION

The result of this study shows that the customers value the overall marketing mix factor at a high level, this finding is similar to previous studies which found that the importance of marketing mix that affects customer selecting decision at important level [13][14][15]. It is noteworthy that the product factor, respondents put their final priorities when compared to other marketing mixes, but still at a very important level. Researcher see that because Tabung Haji only has one financial product that is savings (wadi'ah yaddhamanah) therefore customer don't have the wide variety of product choices.

The respondents focused on the process and people factors at very important level, this finding is similar to previous studies which found that process and people factors had a significantly positive relationship with customer satisfaction [16][17]. The process factor, customers focus on easy, smooth, convenient and fast online service [16] as well as accurate, fastly service that can respond to customer needs, safety, reliable and trustworthy.

While, people factor is one factor affecting on service quality, where respondents seeing that people should be courteous, friendly, service enthusiasm, clear advice and answering and be honest and trustworthy. This finding is similar to previous studies which found that people factors influencing on decision to use Islamic banking, which employees are essential to understand the importance of service, fastly services is one of the most important tools for employees as well as the customer-friendly service [18]. This is also consistent with previous research which found that customer relationship influences customers to frequent Tabung Haji is employee commitment (76.2%), which employee should be polite when dealing with customer, especially during over-the-counter financial services [19].

Hypothesis testing shows that there is a significant influence of age, level of education, occupation and monthly average income on marketing mix factors for customer's decision to selecting Tabung Haji Service Center in Malaysia, whereas there is no significant influence of gender and marital status on marketing mix

factors for customer's decision to selecting Tabung Haji Service Center in Malaysia
These findings

This finding rejected H1, that is similar to previous studies which found that there was no significant difference between males and females for customer satisfaction and that gender and ethnicity had significant [20][21]. One more previous study similar to this finding which found that there was no significant different between gender with marketing mix affecting to use of Government Savings Bank services in Pranburi District, Prachuap Khiri Khan Province, Thailand [22]. While, the significant influence of age on marketing mix factors for customer's decision to selecting Tabung Haji Service Center in Malaysia was 0.011 which were lesser than 0.05. Therefore, the researcher accepted H2. In services, age relates significantly and negatively; signifying that the older customers as compared to their younger counterpart, hold less favorable opinion about the reliability as well as three other service quality constructs, personal interactions, functional quality, outcome quality and overall service quality [23].

From H4, there is a significant influence of education level on marketing mix factors for customer's decision to selecting Tabung Haji Service Center in Malaysia, the researcher accepted H4. This finding is similar to previous studies which found that there is a significant difference between level of education and customer satisfaction. Besides that, the respondents' levels of education had different opinions of customer satisfaction related to the services provided [20][24].

Hypothesis testing, the result found that the researcher accepted H4 that mean there is a significant influence of occupation on marketing mix factors for customer's decision to selecting Tabung Haji Service Center in Malaysia. This finding is similar to previous studies which found that there was significant different between occupation and customer adoption and customer satisfaction of bank service [13][14][25]. In addition, knowledge of customers' occupation can help marketers in devising strategies capable of more effectively delivering services to the specific needs of customers belonging to different occupation groups [23].

Finally, this finding accepted H6, this finding is similar to previous studies which found that there was significant influence of the Decision in Choosing bank's product [26][27][28]. It concludes, a person's economic opportunity will affect the products and services they decide to buy or selecting.

VIII. RECOMMENDATIONS

A. Recommendations for Practices

1. The findings of the study would help marketeer to focus on the elements needed to be developed to have a significant influence on customers' decision on selecting Islamic or non-Islamic financial institute.

2. Tabung Haji could use this finding for further research to understand customer behavior towards their organization, which will provide them the opportunity to foster their marketing activities to survive in the competition.

B. Recommendations for Further Research

1. The study is limited to Kedah state the results may be different in various state of Malaysia so to enhance the generalization of the findings it is proposed to conduct this study in different state of Malaysia.

2. To obtain qualitative information Therefore, qualitative research methods should be obtained for future studies such as in-depth interviews, focus group observations and so on.

3. Other Variant such as customer loyal, customer satisfaction, customer relationship management should be obtain for future studies.

4. Internet-banking and social banking related to customer behavior is an interesting issue should be studied for the Islamic financial industry.

CONCLUSION

The result and findings of this research to guide the development of marketing mix factor influence customer's decision on selecting Tabung Haji Service Center as well as demographic-driven marketing to target and attract customers efficiently. This study is the first to investigate demographic effect on customer decision to use Tabung Haji in Malaysia. The findings can contribute to future research on customer decision and customer behavior, and guide Malaysia's Islamic or non-Islamic Financial institute management towards more effective marketing and service provision. post hoc tests to determine demographic subgroup differences in Tabung Haji service quality perceptions across gender, age, status, occupation, education and monthly average income. Results revealed significant differences in various aspects of perceptions of Islamic financial institute service quality for all demographic variables. In the context of the Islamic or non-Islamic, bank or non-bank, the findings of this study could contribute in segmenting Malaysian's finance service consumers.

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Impact of Delivery Service on Retail Business

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Abstract— The purpose of this research is to 1) to study customer satisfaction levels toward the retail delivery business of convenience stores in Yala Province 2) study the effects of the delivery services on retails stores in Yala Province. This is quantitative research employing a questionnaire as a tool to collect data from 400 samples of customers using the delivery services in Mueang District, Yala Province. From the descriptive statistics analysis, the result identifies the profiles of the delivery service customers as follows. 1) 69% female 2) between 60% years old 3) 10,001-20,000 Baht income 4) less than 5 times per week 5) free of charge delivery 60% 6) less than 1,000 Baht spent per month. Results indicated that opinions of customers toward the delivery service of retail business in Yala is highest can be explained as follows. 1) The convenience of gaining services is at the high level with the average value at 4.37 2) The reliability on the service quality is at the high level with the average value at 3.94 3) The speed of delivery is at the high level with the average value at 3.62 4) The accuracy score is high at The accurate quantity of the goods orders with the average value at 3.57, and 5) The satisfaction on the rider service is at the high level with the average value at 3.45 . Statistically, the hypothesis test indicates that the difference in the individual profiles such as gender, age, marital status, education level and profession shows an insignificant impact rate at 0.05 on the opinion toward the retail delivery business.

Index Terms— Retail Business, Delivery Service

I. INTRODUCTION

Retail is a business that has been with Thai people for a very long time. It directly involves the consumers or end users as they purchase the products or services for consumption purposes, not for sales or reselling. In our daily life we see retails all the time from the very moment we step out from our home. There are retail stores everywhere at every corner of the street, from small retail shops such as street vendors to large retail stores such as shopping malls, shopping centers or convenience stores. The retail business is one of the most important businesses to the consumers as it acts as the center of all the goods required by the consumers with various needs depending on each individual, and as a hub providing information on the needs to the manufacturers, and as a key to the economic system of Thailand, as it delivers the goods to the consumers. The retail business shares 18% in the country's economic system [1]. The retail business can be divided into two main categories that are the traditional trade and modern trade. [2] In 2018 – 2020 the modern trade grows constantly as a result of the ongoing city expansion, covering the consumers in Bangkok and major cities, supporting business opportunities from the changes [3]. Therefore the retail business has played an important role in Thailand's trade. Modern trade can be divided into 5 main categories that are: 1. Department Stores 2. Discount Stores (Hypermarket/Cash & Carry) 3. Supermarket 4. Convenience Stores 5. Specialized Stores. [4] However , in 2020 the retail business saw a steep decline due to the COVID-19 pandemic reducing the purchasing power of the people in the country,

including the absence of foreign tourists. The effects impact the overall revenue of the business in 2020 by -10.0% up to

-13.6% when compared to 2019. [5] Despite the adverse effects of COVID-19 in the retail business, but convenience stores still continue to gain revenue and expand new branches. Moreover, the operators gradually adopt online shopping platforms to increase revenue in the e-commerce segment that is growing rapidly. The foregoing factors may increase the competition in the business while globalization with digital technology continues to change consumer behavior. The business will have to adapt itself to the rapid changes, adjust the commercial strategy, providing new services to be able to distinguish itself and increase the competitiveness to keep drawing customers in the long run. Thus customer services have become a vital part of all segments of the business because they are a tool to create a distinction and competitiveness. In addition, quality customer services will create a bond with the customers and enhance the value of the business in the long run. Today, one of the key services in the retail business and other business is product delivery because it is more convenient to the customers where they have access to a variety of goods, due the customer behavior that has changed significantly from the past as now they demand to receive the products immediately or as quickly as possible. And if the vendor is unable to meet this requirement, the customers will receive the service or product from other vendors who have similar quality but able to respond faster. Therefore this research studies to find the effects of the product delivery toward the customers in the online business to improve the service to directly meet the demand of the customers, and to increase revenue for the retail business in the future.

II. RESEARCH OBJECTIVES

1) To study the satisfaction level of the retail product delivery of the convenience stores in Yala Province.
2) To study the impacts of the retail product delivery of the convenience stores in Yala Province.

III. SCOPE OF RESEARCH

1.Population & Sample Scope

The study population is the delivery customers of the convenience stores in Mueang District, Yala Province. The

calculated number of samples is 400 units from the Convenience Sampling method [2].

2. Variables Scope

2.1 Independent Variables: Individual variables such as gender, age, income level and education.

2.2 The study of the behavior of the delivery customers of the convenience stores in Mueang District, Yala Province in relation to the order frequency, reasons for choosing the delivery service, and the monthly spending rate.

3.Dependent Variables:

3.1 The study of the concept of the delivery customers of the convenience stores in Mueang District, Yala Province in relation to the convenience, delivery duration, delivery accuracy, satisfaction toward the riders, and reliability.

IV. METHODS

This research is quantitative and employs a questionnaire as a tool to collect data from 400 samples of customers using the delivery services in Mueang District, Yala Province. A questionnaire was given to the customers when they entered the convenience store. Customers filled out the questionnaire and give it back to research assistant. Quantitative data were analyzed using descriptive statistical analysis such as Frequency Distribution, and percentage finding before presenting in the form of an essay article.

VI. RESULTS

Results indicated that

A. Gender of the samples: 69 % Female, 31 % Male, this indicates that the majority of the delivery customers of the convenience stores in Mueang District, Yala Province is female.
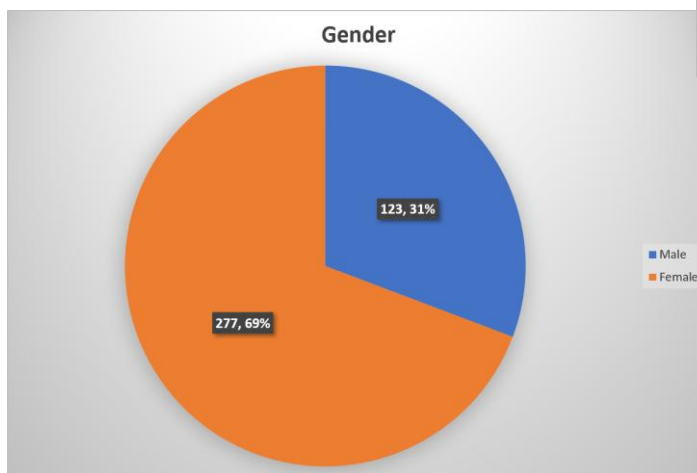
B. Age: 13 % below 15 years old, 60% 16-30 years old, 19 % 31-50 years old, and 8 % older than 50 years, the majority of the delivery customers of the convenience stores in Mueang District, Yala Province is 16-30 years old.
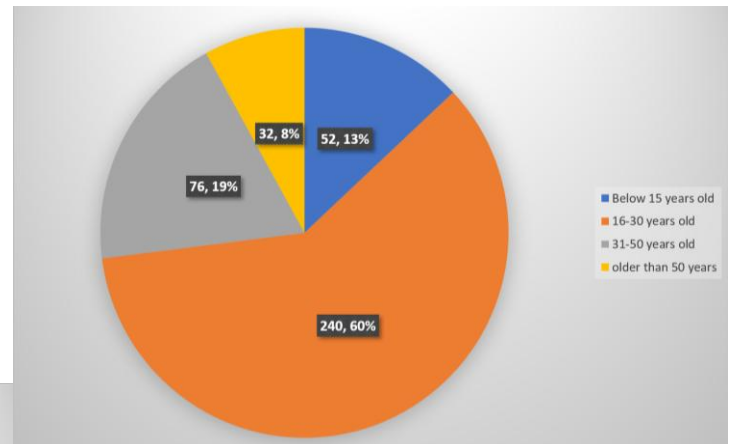
C. Income: 8.% below 10,000 Baht, 55% 10,000-20,000 Baht, 30 % 20,001-30,000 Baht, and 7% over 30,000 Baht, the majority of the delivery customers of the convenience stores in Mueang District, Yala Province has an income of 10,001-20,000 Baht.
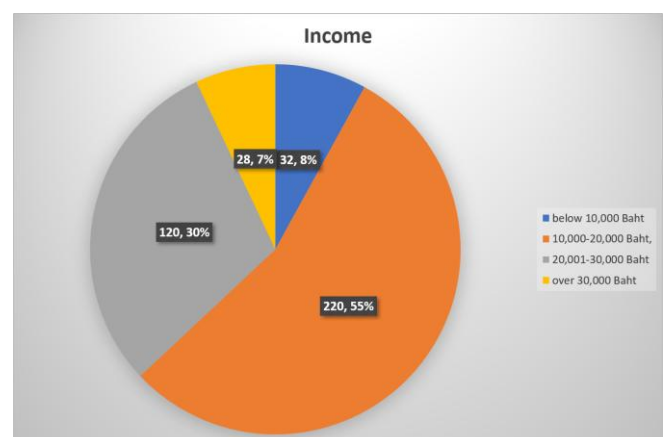
D. Frequency: 15.% regularly, 24 % weekly, 46 % less than 5 times a week, 5 % less than 10 times a month, 10 % never, the majority of the delivery customers of the convenience stores in Mueang District, Yala Province uses the delivery service less than 5 times a week.

E. Reason for using the delivery service from the convenience stores in Mueang District, Yala Province: 47 % free service, 15 % convenience, 35 % rush hours, 3 % others, the majority of the delivery customers of the convenience stores in Mueang District, Yala Province uses the service because it is free, and use it during the rush hours.

F. Spending per month for the delivery service: 47% below 1,000 Baht, 15 % 1,001-2,000 Baht, 35 % 2,001-3,000 Baht, and 3 % over 3,000 Baht, the majority of the delivery customers of the convenience stores in Mueang District, Yala Province spends less than 1,000 Baht per month for the delivery service.
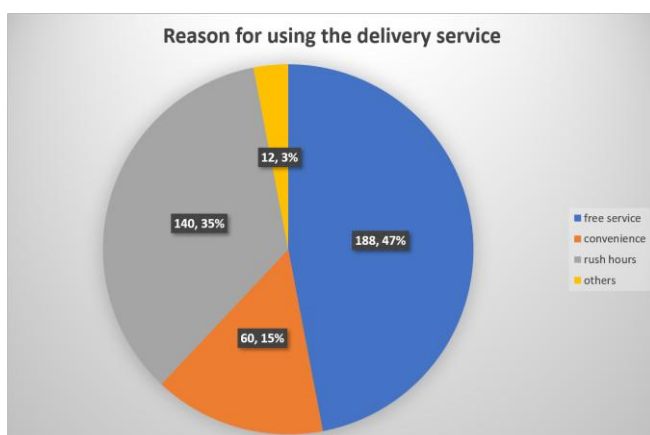
G. Concept of the majority of the delivery customers of the convenience stores in Mueang District, Yala Province:

Category	Satisfaction
The convenience of gaining services	4.37
The speed of delivery	3.62
The accurate quantity of the goods orders	3.57
The satisfaction on the rider service	3.45
The reliability on the service quality	3.94

Table 1 : opinions of customers toward the delivery service of retail business in Yala

The opinions of customers toward delivery service of the retail business in Yala can be explained as follows. 1) The convenience of gaining services is at the high level with the average value at 4.37 2) The reliability on the service quality is at the high level with the average value at 3.94 3) The speed of delivery is at the high level with the average value at 3.62 4) The accuracy score is high at The accurate quantity of the goods orders with the average value at 3.57, and 5) The satisfaction on the rider service is at the high level with the average value at 3.45 . Statistically, the hypothesis test indicates that the difference in the individual profiles such as gender, age, marital status, education level and profession shows an insignificant impact rate at 0.05 on the opinion toward the retail delivery business.

V. RECOMMENDATIONS

The researcher's suggestion from the result as below:

1. The convenience stores providing delivery services in Mueang District, Yala Province should promote their products and services to women because the majority of the customers is female.

2. The free delivery service has a strong influence on the decision of the customers. It should continue to be free to attract more customers and increase the number of customers in the future.

3. The customer group who order the delivery service on a daily basis is 16-30 years old due to the convenience. There should be more promotions for the 16-30 years old group.

4. Increase advertisements, publications, or promotions in the rush hours, morning, and evening to attract more customers during the rush hours, and secure regular customers during the hours as this is the second strongest reason for using the service.

5. There should be a promotion to increase the order frequency as the frequency is less than 5 times a week which links to the revenue of the delivery service. If the frequency is increased, the revenue should be increased also.

6. The service standard of the delivery riders should be improved to increase customer satisfaction which will lead the customers to return.

CONCLUSION

The impacts of the delivery service of the convenience stores in Mueang District, Yala Province are positive because the customer satisfaction score is high, apart from the high demand during the COVID-19 situation. The convenience of gaining services obtains the highest customer satisfaction score. However, the research result indicates that the customers are satisfied with The convenience of gaining services , The speed of delivery , The accurate quantity of the goods orders score is high , while The satisfaction on the rider service and The reliability on the service quality still fall behind. If the business can improve all aspects of the delivery service to fully satisfy the customers, the delivery service should be able to be expanded sales revenue in the future.

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Correlation of Supervision Process and the Performance of the Graduate Program in Faculty of Education Mahachulalongkornrajavidyalaya University

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Abstract— The objectives of this research were 1) to study the supervision process and the performance of the graduate program, 2) to study the correlation of the supervisory components and the performance of the graduate program, 3) to assess the supervision process related to the performance of the graduate program in Faculty of Education Mahachulalongkornrajavidyalaya University with empirical data. Mixed methods research was designed. Research sample consisted of 500 samples, and research tools were interview form and questionnaires. Data were analyzed by using descriptive statistics, Pearson correlation analysis, and analyzed factors of the supervision and the performance by computer software packages. Research results indicated that 1) appropriate supervision process and the performance of graduate programs were classified into five main processes, 64 sub-processes. 2) All supervisory and performance components were significantly correlated at the .001 level, with a correlation coefficient range from .054 to .620, which able to be analyzed for the process. 3) The validation of the supervision process related to the performance of the graduate program in Faculty of Education Mahachulalongkornrajavidyalaya University found that it was fit with empirical data, and analysis results were χ^2 = 103.82, df = 84, p = 0.07, Goodness of Fit Index (GFI) was .98, Adjusted Goodness of Fit Index (AGFI) was 0.94, Root Mean Square Residual (RMR) was .14 and Root Mean Square Error of Approximation (RMSEA) was .02, indicating that the model was consistent with the empirical data. Therefore, the supervision process correlated to the performance of the graduate program.

Index Terms— *Supervision Process, Performance, Graduate Program, Department of Educational Administration*

I. INTRODUCTION

Nowadays, Thai society is rapidly changing in various fields, resulting in many crises in society, including economic, social, political, cultural, and environmental crises, which also resulted in a demand for educational reform. Education is a real tool for economic, social, cultural and political development of the country. The goals of the education must be aiming to create society in a manner that contributes to the development of the nation as a whole aiming to produce people or learners that are directly productive with attributes, potential and the ability to develop oneself and society towards success. Student learning centered is an important way to create and develop students to achieve the attributes needed in the globalization era because it is a teaching and learning that focuses on the learners. Learners are encouraged to learn by themselves, learning in a subject that corresponds to their own abilities and needs. They have developed their full potential. This educational management concept is rooted in educational philosophy and various learning theories that have been developed continuously for a long time. It is a proven approach that can effectively develop learners to have the desired characteristics and aiming for all learners to have the ability to learn and develop themselves. It is considered that the learner is the most important in accordance with the Learning Management Guidelines of the National Education Act 1999 that teachers must have the capacity to manage learning to have high quality standards in accordance with national curriculum and

educational standards. The school has the capacity to develop into the system quality assurance and upgrading of the school's leading of the Office of the Basic Education Commission that is ready to become an international standard school (World-Class Standard School). All personnel must be involved in the provide education to become a school with a learner development system, educational institutions, learning resources, curriculum and learning environments that enable learners to demonstrate self-development, progressing according to their needs up to the international level [1].

Supervision task is one of the most important events in the organization and management of educational institutions. Supervision is an educational process that aims to promote, support, and to develop standards of education, especially supervisors need knowledge, experience and skills in supervision must be encouraged, morale and encouragement. Cooperation from all parties involved in education is one of the important tasks for school administrators, and co-administrators is supervision, especially in the school supervision. It is one way to help improve the quality of education which will help to improve the technical shortcomings for development and promote teaching and learning to achieve objectives. School administrators and co-administrators are being close to teachers and students, and students will be more aware of problems than outside personnel. School supervision will accurately and appropriately meet the needs of school personnel [2].

Supervision is the process of developing quality education personnel, and be able to keep up with the situation, educational policies, courses and various elements. The importance of supervision consists of; 1) to develop academic, knowledge, educational innovation, education management policy curriculum that there are rapid and continuous adjustments. 2) To keep up with the changing political, economic and social conditions with constant adjustments. 3) To solve problems in education management in order to prevent errors in education management and to cause creativity in education management. 4) To raise educational standards. The person who will perform supervisory duties must have the following qualifications: 1) Knowledge, must have knowledge understanding of teaching theory and learning management as well as other relevant elements resulting directly to the learning of the learner. In addition, you must know about the behavior of the person. 2) Skills must have good teaching skills, have communication skills, and problem-solving optimism. 3) Attitude must be a person

with good character, attention, work-minded, responsibility, diligence, courteous, friendly, selfless and devoted to work [3].

The operation of the Department of Educational Administration, the Department of Educational Administration, opened on July 1, 1961, under the name of the Academic Department of 2526 B.E. Department of Educational Administration, 1992, Faculty of Education expanded the classroom from Wat Mahathat, and come to Phrapariyattham School, Ministry of Education, Wat Srisudaram Bangkhunnon Subdistrict Bangkoknoi District Bangkok on June 1, 1992 with the help of Phra Vachirarajamanit. Later, 3 school buildings with 4 floors each, were built and opened in 2013 as a place to study for students of the Faculty of Education, Department of Educational Administration provides education, one area of study, namely the Educational Administration Branch, 1998. The work section was improved according to the Mahachulalongkornrajavidyalaya University Act, 1997. Department of Administration changed its name to The Department of Educational Administration and Sangha Affairs provides two academic disciplines: Educational Administration and Non-school Education. In 2005, it was revised the bachelor degree curriculum in accordance with the announcement of the Office of the Higher Education Commission (OHEC) as a five-year course, providing education in two disciplines as before and opened a master's degree in one discipline, namely Educational Administration. In 2009, the Faculty of Education moved its office to Mahachulalongkornrajavidyalaya University, at 79 Moo 1, Phahon Yothin Road (Km.55), Lam Sai Sub-district, Wangnoi District, Phra Nakhon Si Ayutthaya Province 13170. In 2011, a Master of Arts program has supported for opening in Academic Service Branches, 4 locations: Khon Kaen Campus Nakhon Sawan Buddhist College and Nakhon Si Thammarat campus. The year 2019 has opened a Master of Arts program in the Buddhist Educational Administration branch, Loei Sangha College, is the fifth place in the administration of education [4] which the curriculum encourages students who have studied within the curriculum to have professional skills by allowing students 1) to develop their educational profession, educational administration and various forms of educational management correctly in accordance with modern academic principles and in line with the needs of society, 2) able to demonstrate academic leadership and be a leader of knowledge and ideas and apply knowledge to society appropriately, 3) be able to supervise or advise education, to create knowledge and understanding for

teachers, students, parents or stakeholders to recognize the importance of education as a tool for the development of people in society, 4) able to manage an educational institution which is an organization with administrative factors such as personnel, budget, buildings materials, equipment, and continuous development, 5) able to develop courses to organize student activities, to provide academic work, teaching and promoting students' skills in a consistent and effective manner, 6) to measure and assess learning outcomes, educational quality assurance has been achieved for the objectives, and academic procedures can be integrated into education to be more efficient, 7) being a person in the moral, ethical and professional ethics which can be a role model for teachers, students and the community.

For the graduation criteria for that program, one of the criteria is to pass professional educational administration training. According to the criteria set by the course the curriculum includes an educational professional development course with the objective of enabling students to study the spirit and ideology of executives, Buddhist professional development, professional management, professional institution or organization professional standards for educational institution administrators, teacher production process and professional management, managing administrative knowledge, professional development research, and an educational administration professional training course, which is a course that is mandatory for all students. Students need to pass 90 hours of educational administration professional practice in order for students to study and practice in educational professional development, academic leadership, supervision or guidance school administration, teaching and learning courses, measuring and evaluating learning outcomes affairs and student activities, morality and ethics and professional ethics, educational quality assurance under the guidance of management as mentors and teacher supervision integrating Buddhism with the administration of educational institutions [5].

The researcher is therefore interested in study the supervision process related to the performance of the graduate program, Department of Educational Administration, Faculty of Education, Mahachulalongkorn-rajavidyalaya University to guide the study as well as practice guidelines for teachers of the principles of graduate studies Department of Educational Administration, Faculty of Education, Mahachulalongkornrajavidyalaya University, and those interested in the supervisory process and the performance of the graduate program to be a model of

integration into the supervision manual and practice in developing graduate programs to be effective in working in response to university policies.

II. RESEARCH OBJECTIVES

The objectives of this research were 1) to study the supervision process and the performance of the graduate program, 2) to study the correlation of the supervisory components and the performance of the graduate program, 3) to assess the supervision process related to the performance of the graduate program in Faculty of Education Mahachulalongkornrajavidyalaya University with empirical data.

III. RESEARCH METHODS

A. Research Design

The research on the supervision process and the performance of the graduate program, Department of Educational Administration, Faculty of Education, Mahachulalongkornrajavidyalaya University was conducted by mixed methods research including quantitative research and qualitative research.

B. Research Process

Step 1: to study the supervision process and performance of the graduate program, Department of Educational Administration, Faculty of Education, Mahachulalongkornrajavidyalaya University has 2 steps: step 1 was to study documents on the supervision process and performance of the graduate program. Department of Educational Administration, Faculty of Education Based on books, textbooks, websites and related research. The document study was analyzed by content analysis. Step 2 was interviewing executives, faculty members, graduate program staff, Department of Educational Administration, Faculty of Education, Mahachulalongkornrajavidyalaya University, all 5 places, 10 key informants in the supervision process and performance of the graduate program, Department of Educational Administration. Research tool was interview form and data was analyzed by content analysis resulting in the supervisory process and performance of the graduate program, Department of Educational Administration, Faculty of Education.

Step 2: to study the supervisory components and the performance of the graduate program, Department of Educational Administration, Faculty of Education, Mahachulalongkornrajavidyalaya University has 2 steps: Step 1, the results of the study document. The results of

interviews, supervision and performance components of the graduate program, Department of Educational Administration, Faculty of Education. Data was analyzed by content analysis. The result is the supervisory and operational components of the graduate program, Department of Educational Administration, Faculty of Education (Draft 1). Step 2 Seminar for expert group to develop supervisory process and performance of graduate program, Department of Educational Administration, Faculty of Education, Mahachulalongkornrajavidyalaya University, with 6 experts in the supervision process and performance of the graduate program, Department of Educational Administration, Faculty of Education. The tools used are guide to focus group discussion, supervision process, and practice of Graduate Programs Department of Educational Administration, Faculty of Education. Content analysis was used. The end result is the supervisory and operational processes of the graduate program, Department of Educational Administration, Faculty of Education, Mahachulalongkornrajavidyalaya University.

Step 3: To assess the supervision process in relation to the performance of the graduate program, Department of Educational Administration, Faculty of Education, Mahachulalongkornrajavidyalaya University with empirical data has 3 steps: Step 1, distribute questionnaires, supervisory processes related to the performance of the graduate program, Department of Educational Administration, Faculty of Education, with 500 samples of administrators, faculty, staff and students of the Master of Education Program and a doctorate course, Department of Educational Administration using questionnaires. Data analysis were analyzed by mean, standard deviation, skewness, kurtosis, and distribution coefficient. Supervision processes related to the performance of the graduate program, Department of Educational Administration using Confirmatory Factor Analysis (CFA). Stage 2, examines the consistency of the supervision process in relation to the performance of the graduate program, Department of Educational Administration with empirical data from the supervision process related to the performance of the graduate program, Department of Educational Administration with empirical data created with a computer program with a computer verify the consistency of assessing the supervision process in relation to the performance of the graduate program. Department of Educational Administration with evidence-based Exploratory Factor Analysis (EFA). The results are the consistency of assessing the governance process in relation to the performance of the graduate program, Department of Educational

Administration and empirical data. Step 3 evaluate the supervisory process in relation to the performance of the graduate program, Department of Educational Administration by administrators, faculty, staff and students of the Master of Education Program and a doctorate course, Department of Buddhist Educational Administration. Questionnaire tool was assessed possibility, accuracy, suitability, usefulness. The analysis of data, mean and standard deviation of the crisis-solving process, the transition to a new lifestyle base management with empirical data, resulted in a supervisory process related to the performance of the graduate program, Department of Educational Administration, Faculty of Education, Mahachulalongkornrajavidyalaya University.

IV. RESULTS.

1. The results of research on the supervision process and performance of the graduate program, Department of Educational Administration, Faculty of Education, Mahachulalongkornrajavidyalaya University, found that the study of documents resulted in the supervision process and performance of the graduate program, Department of Educational Administration, Faculty of Education, Mahachulalongkornrajavidyalaya University was divided into 5 main processes: 1) Supervisory process consisting of 15 processes, 2) Supervisory component has 9 processes, 3) Performance component consists of 16 processes, 4) The main objective of Iddhipada IV consists of 12 processes, 5) Supervision related to the performance of the curriculum has an important objective consisting of 12 processes and 64 processes.

2. The results of analysis of supervisory components and performance of the graduate program, Department of Educational Administration, Faculty of Education, Mahachulalongkornrajavidyalaya University

The results of the descriptive statistical analysis of variables used in the affirmative component analysis, the linkage of educational administration for sustainable development. The statistical values used were mean, standard deviation (SD), skewness (Sk), Kurtosis (Ku), and distribution coefficient (CV). For administrative factors, the highest mean was 4.07, followed by the Buddhist management component with an average of 4.07, the administrative characteristics of 4.01, the administrative goals had an average of 3.97 and the component with the lowest mean the educational administration for sustainable development was 3.94 and the distribution of the data was similar to the normal curve. When looking at the sampling factor, it was found that most of the components had

negative values, indicating that the distribution characteristics of the data were less than the normal curve. The information is not distributed much. When considering the distribution coefficient (C.V.), it was found that the data were similar. There is a small distribution of information as shown in Table 1 as follows.

Table 1 Descriptive statistics of the characterization of the supervisory and operational components of Graduate Program, Department of Educational Administration, Faculty of Education, Mahachulalongkornrajavidyalaya University

Supervisory and operational components of Graduate Program. Department of Educational Administration	Mean	S.D.	Sk	Ku	C.V.
1. Supervision process	4.23	0.442	-0.496	-0.333	0.05
2. Components of supervision	4.24	0.436	-0.567	0.398	0.08
3. Components of performance	4.15	0.329	-0.263	-0.298	0.07
4. Principle	4.17	0.371	0.049	-0.715	0.12
5. Supervision related to the performance of the curriculum.	3.96	0.421	-0.375	-0.373	0.03

Exploratory Factor Analysis (EFA) results of analysis of the relationship between supervisory components and the performance of the graduate program. The Department of Educational Administration found that all the components had a significant relationship at the 0.001 level with the correlation coefficient range from 0.054 to 0.762. Supervision process (Sum A) and performance component (Sum C) was 0.762, followed by supervisory component (Sum B) and operating efficiency component (Sum C) was equal to 0.678, the lowest correlated pair, the supervisory process (Sum A) and the supervisory process related to the course performance (Sum E) was 0.054 when considering the Bartlett's Test of Sphericity was 889.019 p-value (sig) = 0.00 indicates the correlation matrix. There were statistically significant differences between the two affirmative elements from the identity matrix. When considering the Kaiser-Meyer-Olkin measure of Sampling Adequacy, it was found to be 0.741, indicating that the components were related. It is appropriate to analyze the supervision process related to the performance of the graduate program. Department of Educational Administration, Faculty of Education,

Mahachulalongkornrajavidyalaya University was very good and able to be used for process analysis. Summarizing the results of the relationship analysis of the supervisory components and the performance of the graduate program Department of Educational Administration was at the .001 level, the correlation coefficients ranged from 0.054 to 0.762. The correlation matrix characteristics between the components were significantly different from the identity matrix. Statistical and the components were related enough able to analyze the process.

3. The results of evaluation of the supervision process related to the performance of the graduate program, Department of Educational Administration, Faculty of Education, Mahachulalongkornrajavidyalaya University with empirical data according to the measurement model used to evaluate the supervision process related to the performance of the graduate program. Department of Educational Administration, Faculty of Education, Mahachulalongkornrajavidyalaya University and the empirical data (Full Model) consisted of 5 main processes, 64 processes. Analysis results found that the model was consistent with the empirical data by considering the Chi-Square = 103.82, df = 84, p = 0.07, which differs significantly from zero, Goodness of Fit Index (GFI) is 0.98, Adjusted Goodness of Fit Index (AGFI) is 0.94, Root Mean Square Residual (RMR) is 0.14 and Root Mean Square Error of Approximation (RMSEA) is 0.02, indicating that the model is consistent with the empirical data as shown in Fig. 1.

Chi-Square=103.82, df=84, P-value=0.07032, RMSEA=0.022
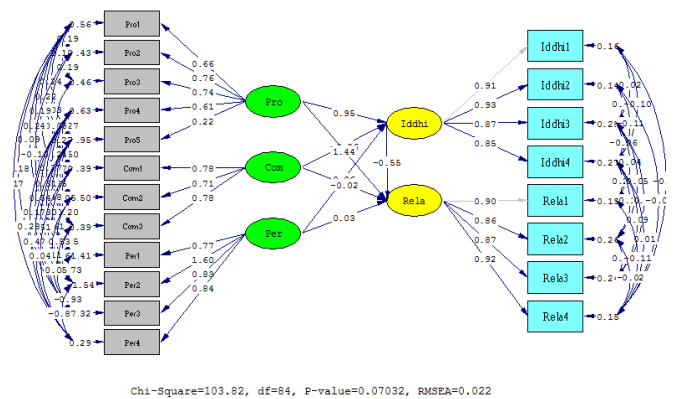
Fig. 1 Supervision Process and the Performance of the Graduate Program

The results of the audit and assess the supervision process related to the performance of the graduate program, Department of Educational Administration, Faculty of

Education, Mahachulalongkornrajavidyalaya University with empirical data by distributing questionnaires, it was found that the supervision process was related to the performance of the graduate program, Department of Educational Administration, Faculty of Education, Mahachulalongkornrajavidyalaya University with empirical data overall, it is at a high level. When considering from a descending side, it was found that accuracy (4.05), feasibility and suitability (4.07), usefulness (4.03).

V. Discussion

The researcher found important points to discuss the results of the supervision process related to the performance of the graduate program, Department of Educational Administration, Faculty of Education, Mahachulalongkorn-rajavidyalaya University as follows:

1. Results of research on the supervision process and performance of the graduate program. The Department of Educational Administration, Faculty of Education, Mahachulalongkornrajavidyalaya University, found that the study of documents resulted in the supervision process and performance of the graduate program, Department of Educational Administration, Faculty of Education, Mahachulalongkornrajavidyalaya University was divided into 5 main processes: 1) supervisory process consisting of 15 processes, 2) supervisory component has 9 processes, 3) performance component consists of 16 processes, 4) The main objective of Iddhipada IV consists of 12 processes, 5) supervision related to the curriculum performance has an important objective consisting of 12 processes, totaling 64 processes that related to the research of Jintanasak Phu-Aram which conducted the research on "The presentation of the autonomous school management model for Thailand" [6] concluded the study that the presented format consists of 4 parts: part 1, the introduction, the context and the background of the concept. Part 2 is the autonomous school administration model for Thailand consists of 5 components: 1) the principles and concepts in the formulation. This includes the principles of decentralization, emphasizing the main participation, rights and benefits of individuals, groups of people, organizations in obtaining and providing basic education. Principles of independence from the rules that apply to general schools. Principles have laws to support the state of the school, principles of verifiable readiness and quality-oriented education management principles, 2) Objectives of the model to provide an alternative to education management that allows individuals, groups, organizations to jointly establish or participate, 3) The characteristics of

autonomous schools consist of meaning, charter, founder, sponsor, authorization of establishment, school type, number of schools admission, the freedom of management, government subsidies and verifiable responsibilities, 4) Charter of autonomous schools, 5) Public school administration. It is administered by the school board of directors and school administration under the supervision of the state in 4 areas, namely academic work, personnel work, finance and general administration work. Part 3 was guideline for model utilization that focus on accelerating the implementation of laws to support the operation of the autonomous school. There is a pilot project. Part 4 The conditions or limitations of the important model are the need to support law and the selection of school administrators and school administrators with the ability to meet the needs. "Motivating Factors Affecting Operational Efficiency: A Case Study of the Special Operations Battalion 1 (Commando) of the Air Force" [7]. Operations of special operations personnel Special Operations Battalion 1 (Commando) Air Force found to be at a high level. As for the motivating factor that contributes to the efficiency of performance of special operations staff, including job advancement opportunities and benefits relationship to the operational efficiency of special operations personnel. Other factors include planning participation, enhancement of knowledge, ability, age, education level, income (salary rate and gratuity), grade level, and length of service no relationship with Staff performance and in accordance with Pornsri Uchi studied internal supervision problems of Rayong Panyanukul School, Rayong Province, Office of Special Education Administration [8] in general, the difference was moderate when considering the aspects with a high level difference was the aspect of morale and morale, and the moderate difference was the evaluation of supervision. There are 3 aspects that are different, namely the understanding and preparation of supervision, supervision planning and the supervisory operations.

2. The results of the analysis of the relationship between supervision components and the performance of the graduate program, Department of Educational Administration found that all the elements had a significant relationship at the 0.001 level with the correlation coefficient range from 0.054 to 0.762. Supervision process (Sum A) and performance component (Sum C) was 0.762, followed by supervisory component (Sum B) and operating efficiency component (Sum C) was equal to 0.678, the lowest correlated pair, the supervisory process (Sum A) and the supervisory process related to the course performance

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(Sum E) was 0.054 when considering the Bartlett's Test of Sphericity was 889.019 p-value (sig) = 0.00 indicates the correlation matrix. There were statistically significant differences between the two affirmative elements from the identity matrix. When considering the Kaiser-Meyer-Olkin Measure of Sampling Adequacy, it was found to be 0.741, indicating that the elements were related. It is appropriate to analyze the supervision process related to the performance of the graduate program, Department of Educational Administration, Faculty of Education, Mahachulalongkorn- rajavidyalaya University was very good, able to be used for process analysis summarizing the results of the relationship analysis of the supervisory components and the performance of the graduate program, Department of Educational Administration at the 0.001 level, the correlation coefficients ranged from 0.054 to 0.762. The correlation matrix characteristics between the components were significantly different from the identity matrix Statistics. The components are correlated enough which be able to analyze the process. This research is consistent with the research of Kanawalabhorn Klinnimnuan researched on "Office management efficiency Phitsanulok Province According to the principle of succession of Iddhipada IV "[9]. The results of comparing the opinions of personnel on Management efficiency of Phitsanulok Provincial Office according to the principle of influence of Iddhipada IV classified by factors personally, the respondents found that personnel with different gender, age, education level, position and income had a view on the management efficiency of Phitsanulok Provincial Office according to the principle of virtue of Iddhipada IV. When considering on a case-by-side basis, it was found that personnel of different sexes had views on the management efficiency of the Phitsanulok Provincial Office according to the Iddhipada IV principles of Wimangsa, which were statistically significant at the .05 level. In order to improve the efficiency of the administration of Phitsanulok Provincial Office, personnel should always have a desire, passionate, love to perform their work, desire to perform their work for greater results, be diligent in their work with hard and patient effort. Do not give up, must be aware of the mission that is assigned by the work with the mind, the mind does not let the mind be distracted, devote yourself to a work that is truly practiced, and always use wisdom to contemplate, inspect, rationalize, examine even more loose points of such work. It is important to know the planning, measure results and devise solutions, improve work to be better all the time and also found that it is consistent with the research of Apichai Chatupornvatee has conducted

research on "Factors Affecting the Performance of Probation Volunteers Nakhon Sawan Province "[10]. The research results showed that 1) factors affecting the performance of the provincial probation volunteers, Nakhon Sawan, overall, was at a high level (μ = 3.79). When considered on a particular aspect, it was found that surveillance, assistance, supervision and report writing were at high levels in all aspects. 2) Relationship between personal factors and efficiency in the work of probation volunteers in Nakhon Sawan Province: gender, age, marital status, education, occupation, income, working period, probation volunteers. It was found that the personal factors of the control volunteers. The behavior did not correlate with the performance of the probation volunteers, thus rejecting the research hypothesis. Relationship between operational factors and the performance of Probation volunteers, it was found that operational factors were related to the efficiency of the performance of the probation volunteers in all aspects was statistically significant at the level of 0.1, except for factors that on the practice of training and seminars, the assignment aspect is related to the effectiveness of the report writing probation volunteers' performance was significant statistical at level 0.05.

3. Results of evaluation of the supervision process related to the performance of the graduate program. Department of Educational Administration, Faculty of Education, Mahachulalongkornrajavidyalaya University with empirical data according to the measurement model used to evaluate the supervision process related to the performance of the graduate program, Department of Educational Administration, Faculty of Education, Mahachulalongkornrajavidyalaya University and the empirical data (Full Model) consisted of 5 main processes, 64 processes, found that the model was consistent with the empirical data by considering the Chi-Square = 103.82, df = 84, p = 0.07, which differs significantly from zero, Goodness of Fit Index (GFI) is 0.98, Adjusted Goodness of Fit Index (AGFI) is 0.94, Root Mean Square Residual (RMR) is 0.14 and Root Mean Square Error of Approximation (RMSEA) is 0.02, indicating that the model is consistent with the empirical data, related with the research of Theerayut Liengsomboon that conducted research on "Factors affecting operational efficiency. According to the views of the government officials and Nan Provincial Administrative Organization employees, "[11] the study found that the factors affecting the efficiency of work according to the views of the government officials and Nan Provincial Administrative Organization employees were at a high level. When considering each aspect, it was

found that the aspects affecting the efficiency of perform duties according to government officials and employees at the highest level, the first is the lifestyle, followed by the administration in terms of job satisfaction. The environment in the work and the incentive to work compare the factors affecting the efficiency of working according to the opinions of government officials and employees of the Nan Provincial Administrative Organization in all 5 areas, it was found that in general there was no statistically significant difference at the level of 0.05. Opinions and recommendations about guidelines for adding factors affecting work efficiency according to government officials' views and employees of Nan Provincial Administrative Organization, including administrative suggest that the main morality and ethics in management in terms of job satisfaction suggest that personnel should have participate in planning. The operating environment suggested that the equipment should be supported modern communication and the lifestyle. It is also suggested that Sufficiency economy should be applied in life and operational incentives. It is suggested that training courses should be provided to develop operational potential.

VI. RECOMMENDATIONS

A. Recommendations for Practices

1. Relevant organizations should promote the policy of budget and organize development projects for administrators, faculty, staff and students in accordance with the curriculum objectives.

2. Organizations involved in supervisory processes related to performance able to apply supervisory processes related to operations to develop other areas in response to the policy, vision and mission of Mahachulalongkornrajavidyalaya University

B. Recommendations for Future Research

For this research, the researcher collected data from administrators, lecturers, staff and students of the Master of Education Program and a doctorate course in the field of Buddhist Educational Administration only, the next research should collect data from the administrators, faculty, staff and students of Mahachulalongkornrajavidyalaya University and study the components of loyalty related to the performance of personnel in order to develop the operational potential of Mahachulalongkornrajavidyalaya University personnel in response to the university's vision, mission and strategy to develop the university to be a world-class Buddhist university in the midst of a changing society.

CONCLUSION

Supervision process related to the performance of the graduate program, Department of Educational Administration, Faculty of Education, Mahachulalongkornrajavidyalaya University, had a consultation meeting before the supervision of supervision jointly plan the supervision according to the clear supervisory practice procedures to provide knowledge and understanding of what will be carried out in the supervision by the performance of the supervisor such as the lecturer of the supervisory management course, which has a proportion that clear and fair, praise and appropriate merit, provide opportunities to express opinions to supervisors and students. The evaluation of the past performance is brought to improve and give additional knowledge about supervision in order to enhance supervision with the performance of the principles of Iddhipada IV in Buddhism, namely, satisfaction in supervision. It is a practice work by function persistence consider various tasks with conscientiousness, combining innovative technology for effective supervision and operation.

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Leadership of Organization Administrators under the Era of Technological Change

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Abstract—"Leadership of Organization Administrators under the Era of Technological Change" is an academic article aims to study leadership of organization administrators under the era of technological change. Being able to lead an organization, administrators must view change as a challenge or opportunity and know how to make an effective change from inside and outside organizations. They must be able to build consciousness to organizations, as leaders of change. Meanwhile, they have to enable organizations view change as a new opportunity to ensure organization management gain maximum benefits and organizations can be developed in a secure and sustainable manner.

Index Terms— *Leadership, organization administrator, the era of technological change*

I. INTRODUCTION

Today, the world is full of rapid change in every aspect, having an impact on all organizations. Emphasis is placed on proactive operations and smart management strategies. Relying on cable leaders only may not be enough to achieve effective management for modern organizations or organizations in the 21st century as competition is quite high. Therefore, leaders have to exchange knowledge and skills with followers or team members to ensure the team has development, self-leadership, and self-management much enough to collaborate with leaders to lead organizations and solve complex problems in an efficient manner. The important thing to develop efficient collaborative working is developing followers to become self-leader, challenging leaders or administrators in this era of change. Organization leaders play an important role in driving the process to be mobilized efficiently. Leadership characteristics and behaviors have an effect on behaviors of employees in organizations and if any organization needs to change, leadership gives a high impact on organizational success and leads the organization to a better situation.

Transformational leadership comprises intelligence, emotional maturity, vision, ability to motivate others, ability to motivate employees to have organizational commitment and determination to reach organizational goals including knowledge about social situations, economic, political and environment situations, encouraging organizations to be able to regularly adjust themselves to changing situations. As for the goals of management, in addition to benefits and business growth, organizations have to consider progress like stability and sustainability. [1] According to Bass [2], transformational leadership is paradigm shift that leads to leadership with vision. Emphasis is placed on decentralization or assigning authority. Leaders possess morality and encourage followers to have a sense of leadership.

In the context of Thailand, which has encountered economic, social, and political changes, most scholars view that organizational change components are personnel or people, attitudes and abilities of personnel, organizational structure, chain of command, and organizational communication including technology, culture, and value. With regards to transformational leadership, scholars propose that situational leadership model is suitable for changes. Most scholars give importance to leadership potential in terms of leading a guideline for decision-making,

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problem-solving skills, promoting and supporting followers. Besides, most scholars said that leaders should be able to choose appropriate media through various channels, use plain and simple language, and pay attention to listening. Importance and relationship of organizational changes have an impact on the roles of leaders. Organizational leaders need to pay attention to and study such changes as a guideline for organizational management so as to increase competitive advantage to achieve maximum efficiency and effectiveness and develop organizations in a stable and sustainable manner.

II. LEADERSHIP

Meaning of leadership

Leadership is the ability of an individual who can encourage changes in another persons or a group of people by motivating them to use their own abilities to act towards such changes[3] Full range leadership model comprises transformational leadership, transactional leadership, free-rein leadership or poor leadership behavior.

Influential leaders can motivate other people to act towards achieving an organizational common goal. The process of leadership is related to the use of power and duty to help achieve team goals. Motivating organizational members to work and achieve the set goals has an influence on group mechanism and group culture. Leadership relies on motivating people[4]. It is a process that a person can persuade subordinates to behave in a certain way toward an intended guideline. Thus, leadership is both a process and qualification of leaders.

The process of leadership is the use of influence without forcing to direct and coordinate tasks of group members to achieve the team goals[5].

Transformational leadership

Transformational leadership means behaviors that a leader shows the management ability and a process of management that a leader influences followers: Interactions between leaders and followers bring changes to both parties. Namely, good transformational leaders should be aware of followers' needs and encourage them to have consciousness, elevate followers' needs to reach a favorable level. Transformational leaders change beliefs and attitudes of followers, inspire them and make them to be aware of mission and vision. Importance is given to benefits of others and emphasis is placed on achieving a common goal. [6] The process that leaders have an influence on coworkers or followers shall be implemented through 4 elements (The four I's of leadership), according to the theory of Bass & Avolio[7] as follow:

1. Idealized influence refers to the way leaders behave themselves to be highly respected and encourage followers to take pride in when working together. Characteristics of leaders are having broad vision that can be transmitted to followers. They are able to control their emotions in crisis situations. They behave themselves for the benefits of others, they are smart, determined, and have self-confidence, and adhere to ideology.

2. Inspirational motivation means the way that leaders motivate followers to have inspiration. They give meaning and challenge in work, making followers active and enthusiastic. They build positive attitudes and possess positive thinking. Leaders will show their devotion to goals and vision. Leaders may build inspiration through individuals and intellectual stimulation, helping followers be able to handle their own obstacles.

3. Intellectual stimulation means the way that leaders stimulate followers to realize ongoing problems in organizations. By doing this, followers have creativity and search for a new method to solve such problems. Leaders stimulate followers to feel that the ongoing problems are challenging their abilities and followers are encouraged to create and propose new things and can solve problems by themselves.

4. Individualized consideration means leaders shall promote and develop potential of followers and coworkers to a higher level. Opportunities to learn new things are given. Individual differences are understood and accepted. Followers are given opportunities to exercise their abilities at full capacity.

III. Leaders and organizational change

Organizational change means a process that makes an organization change from current conditions to desirable conditions that comprehensively cover various dimensions. It shall increase work ability to organizations and develop organizations in the required direction, and respond to the needs of people in organizations, aiming to achieve organizational goals at the end. There are 2 major characteristics of organizational change[8] as

1. Internal organizational change refers to changes occur within organizations such as creating new vision, change of positions, change of supervisors, business expansion, change or modification of policies, adopting technology in workplace. Internal organizational change can be controlled.

2. External organizational change refers to changes occur from environment surrounding organizations such as competitors' strategic changes, laws, policies from the government sector, technological advancement, currency

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fluctuation, fuel price adjustment, etc. External organizational change cannot be controlled.

Organizational change to respond to changes in internal and external organization environment is not easy and several times it may not be successful. Executives may thing that changes can be made by a small number of chief executives and consultants but in fact organizational change is quite difficult and complicated. It may take such a long time for changing an organization and the first factor to be considered is employees in organizations. Their necessary skills and attitudes need to be improved before change so as to achieve preparedness which is an important thing making organizational change successful[9].

There are many methods in the process of organizational change but the methods widely accepted and used are Kurt Lewin's 3-stage model of change and John P. Kotter's 8-step change model. Both models have similarity and enhance each other. Differences can be seen in details of practicing[10] as follow: 1. Kurt Lewin's model involves 3 stages as unfreezing, changing, and refreezing. According to Lewin, the process of change entails creating the perception that a change is needed, the moving toward the new desired level of behavior and, finally, solidifying that new behavior as the norm. [11]

2. According to John P. Kotter, the 8-step change model involve create urgency, form a powerful coalition, create a vision for change, communicate the vision, remove obstacles, create short-term wins, build on the change, anchor the change in corporate culture.

IV. Management under technological change

Management under technological change requires smart leaders. The era of change is full of internal and external organizational changes. Therefore, leaders need to develop themselves at all times to ensure their knowledge and skills can keep pace with the changes according to the theory of Bass & Avolio[12]; idealized influence, inspirational motivation, intellectual stimulation, and individual consideration. Management shall follow the 3 strategies as[13]

1. Having the right person for the right job – Working in the new era requires a higher number of specialized employees. It can be seen that many organizations, from public and private sectors, have developed several projects to attract newly graduated people with knowledge and skills into their organizations so as to develop their potential and enable them to learn the actual working system for being executives of organizations accordingly; for example, Public Service Executive Development Program – PSED held by

Office of the Public Sector Development Commission or Management Trainee Project of the Central Group, etc.

2. Employee retention strategy – To retain positive staff in organizations is challenge that organizations are facing. It is interesting that organizations with low employee turnover rates use which technique to retain employees with them. Mentioned about the world's most desirable workplace, it is "Google" company where around 50,000 employees are working. The company includes a mixture of people from different nationalities and cultures across the world. The important key that Google uses to retain its employees is not salary rates like many persons think about but an explicit organizational culture with good communication that each employee is treated equally. Workplace and environment support employees to exercise their creativity including career support and various activities.

3. Adoption of digital strategies to help increase organization efficiency

Adopting digital technology to organizations in an appropriate manner is as important as having potential employees. Nowadays, it is the era in which a large amount of information is circulated. That is big data consisting of extensive data sets like text, document, audio, image, song, video, etc. Organizations should figure out a method to manage such data to prepare for marketing and customer service strategies. Organizations must plan further how they can be able to keep pace with changes that are going to occur. The important thing that helps promote stability and sustainability of organizations is making understanding of organization environment including service users. The only factor that enables organizations to access needs and behaviors of customers is decoding "data". Making understanding of big data is the important key of the organizations of the future.

It can be concluded that management under technological change requires competent leaders who possess idealized influence, inspirational motivation, intellectual stimulation, and individual consideration by managing organizations in accordance with 3 strategies like having the right person for the right job, employee retention strategy, and adoption of digital strategies to help increase organization efficiency.

V. CONCLUSION

Leadership of organization administrators under the era of technological change includes policies for future, systematic methods to look for and predict changes, right methods to get familiar with internal and external organizational changes, policies on getting the right balance between changes and continuity as policies on creating new

things in a systematic manner are under important roles as follow:

1. Getting to know changes. The world is in the era of technology and information. Knowledge is a key to gain competitive advantage.

2. Leaders need to make changes by specifying goals and methods to handle changes by means of strategic change planning before implementation.

3. Being change agents. Emphasis is placed on overall performance rather than individual performance in organizations so as to learn situations and crisis that organizations are facing.

4. Being thinkers and developers who can keep pace with global changes, have a broad vision in management and get ready to cope with changes without attachment to anything.

5. Democratic management style, listening to opinions of others, thinking together, working together, and joining to solve problems with personnel in organizations.

6. Being organizational coordinators to ensure smooth operations, focusing on working efficiency and coordinating outside organization to seek participative networks.

7. Compromise – Leaders shall make their attempt to avoid employee conflict in the workplace. Leaders must be a mediator in the compromise when problems arise.

8. Public relations – Leaders shall support everyone to prepare a performance report and the report shall be publicized to related persons and public.

9. Public welfare – Leaders must give assistance and care to coworkers as well as continuous development to ensure everyone has a chance of career advancement, forgiveness, warning, and fellowship.

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Effects of Dharma Practices on Psychological Well-Being of the participants Mental Developmentand Create Intellectual Program of the Palangjit Dharma Jakrawan Institute (PDJ) Applying the principles of the Nine Keys Philosophy

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Abstract—This Research is Quasi-Experimental Research of the Explanatory Sequential Research Design. The purposes of this research were Effects of Dharma Practices on Psychological Well-Being of the participants Mental Development and Create Intellectual Program of the Palangjit Dharma Jakrawan Institute (PDJ) Applying the principles of the Nine Keys Philosophy. The sample group was selected from 60 peoples who applied to join the meditation practice. It was randomize assigned to a control groups of 15 people and Experimental groups of 15 people. The selection criteria for the experimental groups were (1) People who have lowered the Psychological well-being assessment by the Harold J. Dupuy Psychological Well-Being Scale in 1997. (2) The sample groups agreed and voluntarily participated Mental Development and Create Intellectual Program of the Palangjit Dharma Jakrawan Institute (PDJ) Applying the principles of the Nine Keys Philosophy. The data were analyzed by using Descriptive statistics, percentage, mean, standard deviation and t-test. The Research was found that (1) The Pretest of dharma practice control groups and experimental groups have moderate of Psychological Well-Being. (2) The posttest scored for experimental groups were higher control groups at .001 level of significance. (3) The posttest of experimental groups was higher Psychological Well-Being than before the training Mental Development and Create Intellectual program at .001 level of significance.

Index Terms—*Effects of Dharma Practices, Psychological Well-Being, PDJ, Nine Keys Philosophy.*

I. INTRODUCTION

Mental Health is a component of health. The World Organization refers to mental health as the state of complete physical, mental, social well-being, and relate to the life of the person. According to Jahoda conceptmental health is a quality of live, resistance to stress. Which is a basic activity that a person must appreciate your actions and continually decide to take action, Therefore, it will affect the maintenance of mental health in a happy state. In addition,good mental health is an essential part of well-being, adaptation, optimize, and emotional intelligence [1].

Mental Health it reflects the quality of life and the optimize of the environment. such as, life satisfaction and there is not have Psychological distress. In addition, psychological well-being can develop from understanding, wisdom, and mental training. Therefore, the religion should be teaching about happiness and how to learn for create happiness in life. Because all the religion is committed to coexistence in peace, and peace can achieve when a person is having good psychological well-being by practicing the mind will affect the physical, healthy, and not suffering from mental illnesses, insomnia, loss of appetite etc. [2]

Psychological well-being will affect for human life in many dimensions such as education, the people who have good psychological well-being be able to successfully in study, career, be motivated to fight various obstacles and success in family life. As for the people who have poor mental health often will have an unstable mood, can't control their emotion, have difficulty adjusting, can't adversity quotient and the realities of life reasonably and effectively.[3]

Ryff say that, ispsychological well-being as the satisfaction from achieving success in a person's life assessed by all events that passed through life, psychological well-being is a condition that indicates of positive mental health consist of 6 dimensions were

1. Autonomy refer to the people who can do self-assess according from true and their own standards, be able to withstand social pressures of thoughts and action; able to direct and control behavior from within self.

2. Environment mastery refer to the ability to control the hassle of activities be able to use opportunities that are effective.

3. Positive relation with others refer ability to understand the empathy, ability for love, good relationship, and understanding of giving and receiving interpersonal relationship.

4. Purpose in life refer to having goals in life and being able to set your own direction in life, have a belief that is based in the mind in order to lead a purpose in life, and see the self-esteem and meaning of past life.

5. Self-acceptance refer to the self-awareness and a positive for self-attitude, understanding and self-acceptance in positive and negative, and have good positive about their past.

6. Personal growth refer to ability to open the new experience and recognize the new opportunities for self-improvement aware of continuous self-development and growth realize for your potential, and there is a change that reflects to self-awareness and self-efficacy. [4] Fisher summary the psychological well-being is mean quality of life, it's the ability to learn, social ability, life satisfaction, condition of all aspects of health including the ability to perform their duties. [5]

In the Buddhist principles is view that: physical and mind are closely related, and they cannot be separated. The Medical research was found that: the state of mind influences the immune system because the state of mind is associated with the autonomic nervous system it causes the effects such as, stress, anger is stimulating the autonomic nervous system causing the physical to secrete neuronal chemicals that are connected by immune cells in the bone marrow.In contrast the mind is free from negative emotion such as love, compassion, forgiveness of others. Moreover, the Buddhist principles or psychological principles are all based on the Hedonic perspective which is a positive felling without negative emotion such as the feeling of pleasure, satisfaction. In addition, happiness as a positive mental health is the Eudaimonic perspective of happiness in relation to mental functioning, it is a self-realization that affect life and human potential development which will improve immunity and good psychological well-being. [6]

Adolescence is the age when there is a transition from childhood to adulthood, there is a risk of various problem followed in physical, mental, emotional, and social aspects. [7] Adolescents who live in a single parent's household to face poverty and leave school, resulting in a social problem that follows Adolescence is an important developmental period to become a quality adult. Which the family context is

especially important because adolescents need support in the process of changing personality pattern from family members. [8] The child will have good psychological well-being and how well to socially healthy depends on perceptions and experiences, so it is important to a child's perception of their own life satisfaction that is a good psychological well-being.

Mental health problems which are considered influencing people of all genders and ages can be considered as an obstacle in living a happy life. The mental health situation of adolescents aged 15 and over is on the rise. The survey was found that, mental health in this age group was lower than the general population in 2552, 2557 and 2558, if classified by region found that, the northern region had 12.3 percent lower mean mental health score than the general region and the average score of adolescents age 15-24 yearhas the lowest average score. [9] This mean that adolescents have lower mental health than other adolescents because of rapid physical, economic and social change that together with adolescents are a turning point. There are have physical, mental, and emotional changes. The problem that are found in Thailand were stress. From the report of the Department of mental health regarding the accumulated stress of Thai people found that, suicide is a major problem for Thai society. In each year more than 3,500 peoples successfully commit suicide and according to statistics in 2011, 3,873 Thais died from suicide, representing 6.03 percent per 100,000 people. When analyzing statistics for each age groupit was found that Thai adolescents must especially concerned about as adolescents are the age that is coping with problem in life and has to adapt in many ways. In addition, adolescents are not much experience may result in mental health problem. [10]

The practice of Dhamma in Buddhism is interpreted according to the knowledge and experience of the individual. The words that convey or describe Buddhist practices are pray to the Buddha,meditate, compassionate, and keeping the five precepts. When the global change and have stimuli from the environment, the disruption and new technology came in the practice of morality was elevated as a behavior therapy, meditation, intelligence and applying psychological principles. [11] From the review literature was found that, most of the research has led to Dhamma practice to train strength and psychological well-being such as the education of Panida Chonwittayasitikul who study Hardness and Psychological well-being of youth Dhammic Practitioners: A Case Study of the Young Buddhist Association of Thailand Participants, it's a quasi-experimental research. The sample used was Youth

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aged between 16-24 years of 103 peoples (39 men and 64 women).

Dharma practices take 8 days 7 nights. This research used the strength measure scale from kobasa in 1979 and psychological well-being scale from Harold J.Dupuy in 1977. Dharma practice program used the renunciation using the four foundations of mindfulness. The research was found that, the pretest scores on hardiness and psychological well-being of youth dhamma practitioners indicated high level of hardiness and moderate level of psychological well-being. The posttest and the follow-up scores on hardiness of youth dhammic practitioners were higher than its pretest scores at .05 level of significance and have hardiness posttest follow-up Dharma practice period are not different. The posttest and the follow-up scores n psychological well-being of youth dhammic practitioners were higher than its pretest scores at .05 level of significance. No differences on those scores were found between the posttest and the follow-up data. [12]

At the same time, the practice of Dharma has been used to improve develop psychological well-being of those who have participated in Dharma practice programs such as the study of MutitaKongpan.who study Effect of Practice the Dhamma to Psychological Well-Being of Practitioners in the Intensive Meditation Program for the Spiritual Development of the Young Buddhists Association of Thailand Under the Royal Patronage. It's a quasi-experimental research, 250 participants were selected from all dhamma practitioners. The majority of them was females 81.2 percents, 15-29 years old 38 percents, the sample selection criteria were Dharma practitioners with cooperative consent to conduct research without limitation of gender, age, education, occupation. Harold J. Dupuy's 1977 psychological well-being Scale was used to measure the mental well-being of participants in Dharma practices.Dharma practice program used the renunciation using the four foundations of mindfulness. The research was found that, the pre-test score on psychological well-being of sample indicated moderate level, the post-test score on psychological well-being of sample was higher than its pre-test scores at 0.05 level of significant. [13]

In addition, the practice of Buddhism must be influence on the Buddhist belief together in order to affect those who participate in the Dharma practice in order to develop their psychological well-being, but if those who participate in dharma practice do not experience and sense of coherence then developing of psychological well-being is only a short-term goal such as research of Darawan Raksat (2557) study about The Effect of Buddhist Characteristics on Psychological Well- Being of Adolescents in Holistic Mind Development for Youth Project of the Young Buddhists

Association of Thailand Under Royal Patronage; The Mediating Roles of Sense of Coherence. This research is a correlation research. The sample was used 424 youths participating in the integrated Youth mental development project in 2013 aged 13-22 years. The research was found that, the belief of Religious has direct affect for psychological well-being and Buddhist beliefs has indirect effect psychological well-being through the sense of coherence. As for the Buddhist practice there is a direct effect on psychological well-being and Buddhist practice has indirect effect on psychological well-being through sense of coherence especially sense of coherence is mediators of some variables. [14]

From the review literature, the past of research papers it was found that the most of research used same area scope to study and most of sample groups is youths. Where the Dharma practice program uses the same principles as the four foundations of mindfulness, At the same time was found that, this research will study is different from the pastbecause it studiesof the effect of Dharma practice that affects psychological well-being applying the nine keys philosophy, which is a philosophy that has recently been used in academic work. Over the past, nine keys philosophy have been studied whether are dimension of human development, conflict resolution, personal development. In addition, the research of chuniphapoedloknimit(2020) study of A Causal Relationship Model of Mental Development and Create Intellectual Prosperity among Ethical Training in Palangjit Dhamma Jakrawan (PDJ) Institution with Nine-Keys Philosophy, the research was found that, the training course for the Mental Development and Create Intellectual Prosperity among Ethical Training have direct effect for participants have more ethical knowledge, followed by ethical attitudes, ethical reasoning and ethical behavior withstatistical significance at the .01 level. [15]

For this reason, the researcher is interested in studying the psychological well-being of the partitioners before and after the experiment using by the training course on the development of mental intelligence and applying nine keys philosophy principles from PDJ Institute. However, the programs can use in education institutions, public sector, private sectors who interested in promoting psychological well-being of Thai peoples to be productive and increased emotional intelligence and have the power to fight against obstacles in life better.

: II. RESEARCH OBJECTIVES

Objective of this research was study Effects of Dharma Practices on Psychological Well-Being of the participants Mental Development and Create Intellectual Program of the Palangjit Dharma Jakrawan Institute (PDJ) Applying the principles of the Nine Keys Philosophy

III. RESEARCH METHODS

A. Research Design

This research is a quasi-experimental research study by one group pretest-posttest design to study Effects of Dharma Practices on Psychological Well-Being of the participants Mental Development and Create Intellectual Program of the Palangjit Dharma Jakrawan Institute (PDJ). The independent variable is the program of Dharma practices of the PDJ applying the nine keys philosophy and dependent variable is psychological well-being and using Non-Randomized Control Group Pretest Posttest Design. The control group will receive a general training course is prayer, meditation, walking meditation. For those in the experimental group, the practice of Dharma is integrated with the nine keys philosophy through a program of psychological well-being applying the nine keys philosophies.
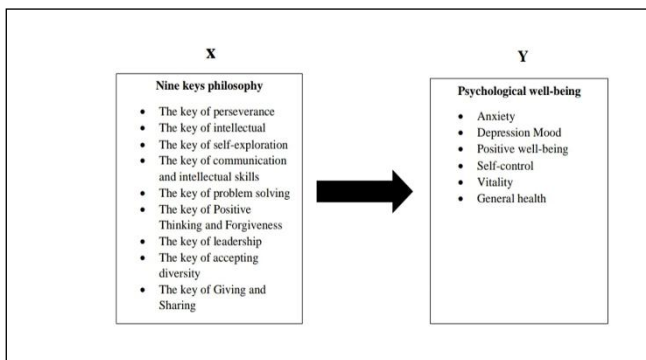
Fig 1 Conceptual Framework

Participants

Target Population is 60 Dharma practitioners who attended the training course for Mental Development and Create Intellectual Program from 1-9 January 2019. The convenience sample consisted of 30people who interested to practice Dharma in Mental Development and Create Intellectual Programattended the training from 1-9 January 2019.

Inclusion and Exclusion Criteria

The inclusion criteria for this study were Dharma practitioners with cooperative consent to conduct research and stay for 9 days of training by requiring all trainees do self-assessment of psychological well-being, and the exclusion criteria were Dharma practitioners who do not practice Dharma for 9 days and do not enter the Mental Development and Create Intellectual Program.

Measures

The Psychological well-being scales (PGWBS) is widely used Harold J. Dupuy in 1977 based on the theory of Kurt Lewin who believe that the mental behavior is holistic and cannot be view individually. The characteristics of the psychological well-being scale consists of 16 items and divided into different components were

1. anxiety were items 2, 5, and 9
2. depression were items 4,12, and 16
3. positive well-being were items 1,6, and 11
4. self-control were items 3,7, and 13
5. vitality were items 9,14, and 15
6. general health were items 10

The Positive questions are a total of 6 question consists of items 1,3,6,9,11,13, and negative questions are a total of 8 questions consists of item 2,4,5,7,8,10,12, and 14. There are two questions that are linear analog scale is items 15 and 16. The psychological well-being scale was asked about events that happened in the past 1 month. From the part 1 consists of 14 items is Rating scale of 6 level have scored from 0-5 dived into six positive questions, eight negative questions with a full scored of seventy with the following scoring criteria as follows

Rating scale	excellent	good	moderate	low	Very low	never
Positive question	5	4	3	2	1	0
Negative question	0	1	2	3	4	5

From the part 2 consists of linear analog scale. The question has scored 0-10 points, 0 means we do not agree, 10 means I agree with that, there are have positive question is 2 items with full score of twenty points. The scoring criteria as follows

73-110 points is mean high levels of psychological well-being

61-72 points is mean moderate level of psychological well-being

0-60 points is mean low levels of psychological well-being

Content Validity

The psychological well-being was assessed by five experts and have internal consistencyCronbach's alpha coefficientis .90.

Data Collections

1. Do a letter requesting permission to collect information to the palangjit dhamma jakrawanInstitute (PDJ)and explaining the purpose of collecting information to the director of the PDJ.

2. The researcher explains to the program and the purpose of the research to participants and ask for research

cooperation in which the practitioner signed their consent to participate in the research.

3. The practitioner perform a psychological well-being assessment before starting the Mental Development and Create Intellectual Program.

4. After nine day of Dharma practice, the participants in the program will complete the assessment again with the psychological well-being is an original assessment.

5. Collect the data that were analyzed for statistical results.

Data Analysis

In this study, the researcher used the statistics to analyze the data by SPSS for window version 22 and the Paired sample t-test statistic to test the mean difference of the psychological well-being score between pretest and protest.

IV. RESULTS

Table 1 Test of Normality

PWB Scale	Shapiro-Wilk		
	Statistic	df	P
anxiety	.905	15	.115
depression	.578	15	.006
Positive well-being	.862	15	.026
Self-control	.898	15	.089
vitality	.835	15	.011
General health	.884	15	.055

From the Table 1 it was found that statistic test before data analysis in the quasi-experimental research using the Shapiro-Wilk statistic test. Additionally, the statistic test was between .578-.905 and was statistically significant greater than .05 in the most groups. Therefore, it can be concluded that each data group has a normal distribution.

Table 2 Compare the practitioners psychological well-being scale for pretest and posttest

PWB	Experimental Group		
	$\overline{X}$	S.D.	P
Pre-test	46.13	8.18	<.001
Post-test	84.00	9.20	

***p<.001

From the table 2, it was found that the comparison of the psychological well-being scores of those participated in the Mental Development and Create Intellectual Program from PDJ pretest and protest found that, mean of pre-test and post-test

psychological well-being scores were significant at .001 level. The post-test score mean entered the Mental Development and Create Intellectual Program from PDJ greater than pretest (Mean=84.00).

Table 3 Comparison of the mean psychological well-being scored of the experimental group classified each aspect

PWB	Pre-test		Post-test			
	$\overline{X}$	S.D.	$\overline{X}$	S.D.	t	P
Anxiety	49.26	9.36	69.73	5.87	-8.43	<.001***
Depression	54.46	5.43	72.93	7.24	-12.21	<.001***
Positive well-being	55.46	4.54	74.06	4.19	-25.06	<.001***
Self-control	54.20	7.04	73.13	5.80	-11.71	<.001***
Vitality	53.86	5.22	72.93	4.83	-15.23	<.001***
General health	54.73	5.65	75.73	8.11	-9.47	<.001***

***p<.001

From table 3 it was found that mean score and overall psychological well-being of the pre-test and post-test sample were significant at .001 level.

In addition, when interview the key informants the participated in the Dharma practice Mental Development and Create IntellectualProgram from PDJ applying the nine keys philosophy principles was found that, the participants have healthier because being with nature, and without external stimuli to disturb as an interview

"Feeling physically stronger. In the past my physical is frequent discomfort. But after coming to practice Dhamma It's much stronger. "

"I feel don't have anything to disturb, being with new friend, learned through new activities and the Dharma practice is not boring"

As the same time, the participants say that the Dharma practices helps to learn how to control the emotion,self-exploration, self-awareness, and knower how to use reason rather than emotion as an interview

"In the past if I have feeling upset, angry, and speak without thinking. But when I come to Dharma practice

program, I feel that I can control my emotion and will thinking before doing"

"if I am not satisfied, I just say it out. Do not care what other people think. But after I came to Dharma practice, I have self-regulation and always thought that what would have been said to other people"

In addition, was found that, the key informants after came to Dharma practice their have self-esteem, not think negatively, and interact with other more than ever as an interview

"Before came to Dharma practice I like to keep myself silent and worthless. But after Dharma practice I felt myself able to do many things. See the aptitude of oneself and other and valuable"

"I don't like many people because I feel chaotic, like to do something alone but never succeeded. But when I come to Dharma practice, I feel it incredibly good when doing activities with friends and have new friend to conversation more"

V. DISCUSSIONS

From the research result was found that, the participants in the Mental Development and Create Intellectual Program applying nine keys philosophy from PDJ the experiment had mean score of 46.13. But when the participants entered the dharma practice program for nine days found that, the experimental group had a mean score of 84.0 and have significant at .001 level. However, the dharma practicein the Mental Development and Create Intellectual Program applying nine keys philosophy from PDJ have a greater psychological well-being. The aspects with the highest mean score were general health (Mean=75.73), followed by positive well-being (Mean=74.06), self-control (Mean=73.13), depression (Mean=72.93), and anxiety (Mean=69.73). This research was congruence with muthitakhongpun study of effect of Practice the Dhamma to Psychological Well-Being of Practitioners in the Intensive Meditation Program for the Spiritual Development of the Young Buddhists Association of Thailand Under the Royal Patronage. The research was found that, the psychological well-being scores of the participants pretest and posttest were significant at .001 level.

In addition, the participants in the Dharma practice Mental Development and Create Intellectual Program there will be eudinomics happiness and psychological well-being because most of them have self-esteem, self-reliance, and have Positive relationships with other, including

management of the environment that occurs in their own minds such as self-control. Therefore, the program focuses on the individual to achieve his own goal and teach people to have self-awareness and self-assessments for their internal emotion related to quality of life and emphasize the happiness and psychological well-being of the participants by raising their positive emotions without negative emotions.This research was congruence with McDowell say that: The psychological well-being is eudinomics happiness. With an emphasis on emotions, felling that a person has purpose in life. [16]

VI. RECOMMENDATIONS

A. Recommendations for Practices

1This study was only one experimental group. Therefore, should be applied nine keys philosophy to other groups.

2 The research was found that, for anxiety variable after the experimental was mean score lower than others. Therefore, should be test it in a correlational research model to see the nine keys philosophy which the keys are to influencing anxiety and make Dharma practice more effective

B. Recommendations for Further Research

This research study the participants in the dharma practice in the Mental Development and Create Intellectual Programfrom PDJ. The limitation in this research are a diverse group of samples. The researcher attempted to equalize the sample group to reduce the extraneous variable. The further research should study a larger sample and need to define a specific sample group including follow-up to be conducted for determine if the program is effective in the short or long term to develop appropriate programs.

CONCLUSION

Research study the effects of dharma practices on psychological well-Being of the participants mental development and create Intellectual Program of the Palangjit Dharma Jakrawan Institute (PDJ) Applying the principles of the Nine Keys Philosophy found that, in quantitative research which is quasi-experimental research the participants in program had improved the psychological well-being. The participants who come to practice dharma Mental Development and Create Intellectual Program applying nine keys philosophy from PDJ course there was a better psychological well-being than practice without applying the nine keys philosophy. From interview the key informants after participating in the program it was found that participants in dharma practice have positive emotion, self-control, self-esteem, healthier, and have better in quality of life.

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The Extradition Measures under International Agreements in the Ineffectiveness of the Relevant Internal Law for the Enforcement of Detention of Suspects

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Abstract—Extradition is an international process which states expect to achieve the goal an accused brought to justice in territory of a requesting state where such person has committed a crime. However, there are a number of factors affecting extradition and causing it to be ineffective, such as diplomacy, politics, and so on. Therefore, states should seriously cooperate in the extradition -with–sincerity.

Index Terms— Extradition of Requested State , Exceptions of Extradition, Extradition Cases of Thailand.

INTRODUCTION

For decades, there have been offences committed in Thailand by the accused who then escaped from Thai Judicial Process to hide in a state which does not have extradition agreement with Thailand. Although the Extradition Act was legislated in B.E. 2551 (2008), effective enforcement has not existed. As a result, a suspect or does not fear law enforcement as they are confident that they shall not be brought to punishment under the law.

The abovementioned issue affects relevant agencies, the authorities of which are responsible for extradition. For example, the Office of the Attorney General and Thai Royal Police have been reviled that they are not capable of carrying out the extradition effectively.

1 Definition of extradition

Extradition refers to a process that a requesting state requests another state (hereinafter "requested state") to extradite an accused who committed a criminal offence under its law and currently resides in the requested state to the requesting state to stand trial there. The other purpose of extradition is to extradite a fugitive who had been sentenced in the requesting state but somehow managed to escape to the requested state back to serve a punishment in the requesting state[1]

2. Principle of Extradition in accordance with international agreements and relevant domestic laws.

2.1 Principle of Extradition in accordance with international agreement or treaty

According to the extradition under the obligation prescribed in a treaty, regardless of Thailand is a requesting state or a requested state , Thai officials shall firstly consider if there is an extradition treaty between Thailand and the requested or requesting state or not. If there is such a treaty, Thai officials shall perform duty in accordance with the obligations under the treaty. If there is no such treaty , the Thai officials shall perform duty under the condition of reciprocity as provided in Section 4 of the Extradition Act, B.E. 2551 (2008) which states that "This Act shall be enforce upon the extradition that is not conflicting with or contradictory to the provisions under the treaty respecting extradition between the Government of Thailand and the Government of a Foreign Country or international organization.

According to the provision provided in Section 4 mentioned above, it can lay down a guideline in the case that there is/are provision(s) under the extradition treaty which is/are not consistent with the Extradition Act. Extradition shall be carried out in accordance with the treaty, not domestic law where there is a conflict between the domestic law and the treaty.

2.2Extradition under the principle of reciprocity

Reciprocity refers to a condition that when a requested state extradite a person sought to a requesting state. In the future, if the requested state which extradites the person

sought to the requesting state needs to ask the country in which the person sought resides to extradite such person to it, the requested state (previously the requesting state) shall execute the extradition request in return.

However, the execution of an extradition request under the principle of reciprocity could come across obstacles. For example, when Thailand is requested to extradite a fugitive but an offence he/she committed in the requesting state carries death penalty under the Thai law, some requesting states may not be able to undertake reciprocity since they do not have death penalty. Likewise, they shall not extradite a fugitive to face justice in Thailand for fear that such fugitive may be punished by death penalty in Thailand[2] Despite this, extradition from the state that does not have death penalty to Thailand can be executed if Thailand assures a requested state that it shall not give punishment by death to the fugitive extradited from that state as provided in Article 29 Extradition Act, B.E. 2551 (2008).

2.3 Extradition considered on the basis of double criminality

Under the principle of double criminality, an extraditable offence must be a criminal one that is established by laws of both requesting and requested states. For example, if Thailand submits its extradition request to Switzerland to extradite a person committing tax offence, the request does not comply with the condition of Switzerland since tax offence is not a criminal offence, but it is a civil offence in Switzerland. However, the principle of double criminality could be exempted if there is an extradition treaty which provides an exception as such between a requesting and requested states.

2.4 Extradition considered based on an offence having punishment from one year upward

An offence to be extraditable must be a criminal one that both the law of a requesting and a requested state establish it to be a criminal offence having punishment by death or imprisonment or deprivation of liberty from one year upward. However, such offence needs not to have the same scale of punishment or the same name under the laws of both states.

The reason why the scale of the punishment is one year upward is that there are processes related to many authorities for an execution of the extradition. As a result, this process usually takes a long period of time . Thus, it is not worth to extradite a person committing a petty offence or an offence with low scale of punishment.

However, in case there is an extradition treaty which was specially agreed by both parties to comply with obligations to extradite a person who escape imprisonment. For example, as Article 2(1) paragraph 2 of the Treaty between the Government of the United State of America and the Government of the Kingdom of Thailand Relating to Extradition A.D. 1991 provides below[3]: (Treaty between the Government of the United State of America and the Government of the Kingdom of Thailand Relating to Extradition B.E. 2353 (1991)).

"For the enforcement of a penalty or detention order for such an extraditable offence, extradition shall be granted if the duration of the penalty or detention order still to be served amounts to at least six months."

From the above provision, the extradition shall be executed although the remaining period of punishment is less than one year. It is also important to note that the punishment of a person who escapes imprisonment or confinement must be an extraditable one.

3.Exception of extradition refusal

3.1 Political offence has often been claimed to refuse the execution of extradition request since the ancient time, and it has become international custom. Consequently, this study aims to investigate the meaning of political offence claim, political offence consideration, and prohibition of political offence claim which are described as follows.

(1) In case that extradition of a person committing a political offence is requested, a requested state may not execute such request. In order to consider if any offence is a political one or not, status of the person committing an offence is usually taken into account. If a person sought for extradition holds or held any political position and committed an offence for the political purpose, the offence he committed is considered as a political one, his offence tends to be considered as a political one. This is because it is

the intention of international community not to punish a politician with the

criminal offence he committed , such as, cheating in an election, Coup d'etat, etc., although it is a serious offence. And as it is controversial to decide if an offence is a political offence or not, the government of a requested state shall solely have authority to decide on a basis of political reason.

Take the case of Treaty between the Kingdom of Thailand and the Kingdom of Cambodia on Extradition A.D. 1998 as an example.

Article 3(1) of the Treaty states that Extradition shall not be granted under this treaty if the Requested Party considers the offence for which the request for extradition is made by the Requesting Party as a political offence. This reflects that the Requested Party shall solely have right to consider such offence. The Treaty does not provide that a Requested and a Requesting Party shall jointly a political offence. As a result, a number of–accused committing an offence in Thailand chose to escape to Cambodia. For example, Mr. Wattana Atsawahem, a defendant in Klong Dan case who escaped from Thailand, was sentenced to 10 years in prison with an offence of wrongful exercise of his function as Deputy Minister of Interior by the Criminal Case Division for Persons Holding Political Position of the Supreme Court of Thailand. He induced official of Samut Prakarn Provincial Land Office to issue a title deed of 1,900 rai of land located in Klong Dan district in Samut Prakarn province to Palm Beach Development Company.

During the Supreme Court consideration of this case, he escaped and did not appear at the court for hearing the judgement. The Supreme Court thus issued an arrest warrant to seize him to be punished by imprisonment for 10 years. The period of prescription of this case is 15 years. Although there was a clue that he escaped to People's Republic of China and then, the Kingdom of **Cambodia**[4] (Naew Na online, B.E. 2563) the Thai government somehow has never requested his extradition from Cambodia.

3.2 **Military offence claim**

There is a provision provided in Section 9(1) Extradition Act, B.E. 2551 (2008) which is in line with most extradition treaties which do not include an military offence as an extraditable one. However, where a soldier commits a criminal offence which is also a military offence, that soldier could be extradited.

3.4 Case terminated by prescription

Extradition shall not be applied to a case terminated by prescription. This is in line with a general provision of law in every state that legal proceedings shall not be taken if the case is terminated by prescription. Despite such principle, some international treaties provide that a case shall not be extraditable unless it is still in a period of prescription under the laws of both a requested and a requesting states. Against this background, some treaties provide that whether a case shall be extraditable or not depends on a period of prescription of a requesting state. It means that although a case is terminated by prescription according to law of a requested state, such case can be extraditable. This condition is reflected in Section 10 Extradition Act, B.E. 2551 (2008) stating that "Where any persons sought for

extradition…state for limitation is lapsed or there arises any other causes barring the proceedings against such person under the law of the Requesting State such person shall not be re extradited in respect of such conduct" According to Thai law, it can be interpreted that a case to be extraditable must be in a period of prescription based on law of a requesting state, and a period of prescription based on law of a requested state shall not be applied, unless there is a treaty between both states provides otherwise.

3.5 Case of a sought person who was acquitted or already served punishment

A person who had already been prosecuted in a court of either a requesting or a requested state and was later acquitted by court decision or completely served his punishment shall not be re extradited. This is in line with the principle of Double Jeopardy . Furthermore, Rome Statue of International Criminal Court A.D. 1998 provides a crucial condition in Article 20 that a person shall not be twice tried for the same offence in order to set the final condition of legal proceedings which International Criminal Court is prohibited from rendering punishment to a person who has been already convicted or acquitted (No person shall be twice tried)[5] as follows.

1. A person who was convicted or acquitted by court decision according to crime he committed shall not be tried.

2. No person shall be tried by another court for a crime referred to in article 5 for which that person has already been convicted or acquitted by the Court.

3 No person who has been tried by another court for conduct also proscribed under article 6, 7, 8 shall be tried by the Court with respect to the same conduct unless the proceeding in the court were not conducted independently or impartially in accordance with the norms of due process recognized by international law and were conducted in a manner which, in the circumstances, was inconsistent with an intent to bring the person concerned to justice.

3.6 Prohibition of prosecution and punishment for an offence committed prior to executing extradition

After an extradition is executed, a requesting state shall not prosecute a person sought for an offence committed before surrendering process and not prescribed in the extradition request. In other words, a –requesting state shall prosecute and punish an extradited person for only an offence specified in the extradition request (Rule of Specialty). If a requesting state would like to prosecute an extradited person for an offence committed prior to surrendering

process, it shall initially seek consent from –a requested state except in the case that such person has traveled out of the territory of a requesting state after completion of the extradition process and voluntarily returned to it, or not traveled out of the territory of a requesting state within a period prescribed by law, such as, 30 days after he is granted freedom to travel from such state as prescribed in Section 11 Extradition Act, B.E. 2551 (2008)

3.7 Extradition of a national

In the past, a state did not extradite its own national. Accordingly, extradition –treaties nowadays gives right to contracting parties to refuse to execute extradition request of their nationals Nevertheless, many extradition treaties provide exceptions of such principle. This reflects that it depends on decision of a requested state to refuse or execute a request.

The to refuse extradition of a national sometimes is blocked by political pressure. For example, a Thai citizen who had been accused of committing narcotic offence was extradited to the United States of America. In this case, if Thailand refused, it would have been considered not to support narcotic suppression and would have been blamed and sanctioned by any means.

The above example refers to the case of Mr. Tanong Siripongpreecha who was sought for extradition for narcotic offence by the United States of America. In B.E. 2537 (1994), he was alleged for being involved with narcotic trafficking for 17 years by the Drug Enforcement Administration÷ (DEA) of the United States of America[6]

However, Mr. Tanong, who was a politician at the time, refused such allegation and told that he was framed . Then, he decided to quit Chat Thai party to defend the allegation, and on 8 May 1994, the committee of the party investigated him and identified other Members of the House of Representative who were allegedly involved with this case.

On 11 May 1994, a local court in North California ruled that the case had *Prima Facie* to believe that Mr. Tanong Siripongpreecha and his wife had been involved with narcotic trafficking in the U.S. The U.S. authority then contacted the Thai counterpart to extradite him and his wife to be on trial at a court in the U.S.

In January 1995, the Criminal Court in Thailand issued the arrest warrant of Mr. Tanong. He, then, surrendered himself and put up a defense.

On 28 December 1994, Mr. Tanong was sentenced to 18 years in prison by a Thai Court. The Ministry of Foreign Affairs then informed the US authority to receive him within 3 months. Later, the U.S. authority brought him to California Court where he was sentenced to 40 months in prison and 5 years' probation without fine. This is an

extradition that a Thai national was extradited to stand trial in a court of the requesting state for a criminal offence he had committed within its jurisdiction.

3.8 Punishment by death

Death penalty has been abolished in many European states., The maximum punishment is imprisonment for life. Although there is an extradition treaty between these states, they shall not extradite any persons to a state where death penalty exists.

There is a case study that the UK refused to execute the extradition request of Thailand since the offence committed by the person sought for extradition have punishment by death as established by Thai law. This case breached the Treaty between the Kingdom of Thailand and the United Kingdom on Extradition A.D. 1991 which does not prescribe that death penalty is the exception of execution of extradition request[7]

Negotiation on extradition treaty between Thailand and some European states had to end since there has been abolition of death penalty in those states, while there are a number of offences having punishment by death established by Thai law. To make the extradition between both parties work, the requested state which does not have death penalty in place usually asks

- Thailand to ensure that it shall not give punishment by death to a person sought for extradition to Thailand. Later, there was an amendment of the Thai domestic law so as not to be obstacle for the success of extradition. Such amendment appears in Section 29 of the Extradition Act, B.E. 2551 (2008) which provides that "Where Thailand requests extradition on the offence punishable with death according to the Thai law but not up to the punishment of death according to the law of the Requested State and it is of necessity for the Government to give assurances of non-execution, negotiation for the settlement on giving such assurances shall consequently be carried out. In this respect, if the Court gives a death sentence, the Government shall proceed in accordance with the provision of law for the enforcement of execution according to the judgment by means of life imprisonment in lieu of death. The reduction of such person's punishment shall not be granted in whatever grounds except in the case of the royal pardon." However, although the Thai government undertakes not to give punishment by death to a person sought for extradition, Thai court still has power to sentence such person to death. If this

happens, the Department of Correction shall not give death to the person sought by not setting the date of execution so as to keep up with the commitment that the Thai government gave to the requested state.

4 Contradiction between a treaty and Thai law

Thailand is a party to the extradition treaties with many states. Obviously, each treaty contains different details from one another. Moreover, some of these treaties might have some provisions which are not consistent with Extradition Act, B.E. 2551 (2008). However, an execution of extradition request shall be carried out in accordance with the treaty since the international law usually prevails if it is contradict to the domestic law.

Extradition Act, B.E. 2551 (2008) reflects this principle as prescribed in Section 4 that "This Act shall be enforced upon the extradition that is not contradictory to or consistent with provisions of the treaty respecting extradition between the Government of Thailand and Foreign Country or international organization."

However, it is important to note that where an extradition treaty and domestic law are not compatible, compliance with the treaty is required if such treaty specifies that the requested state has the obligation to comply with the treaty in the case of contradiction between the treaty and domestic law only. In other words, if the treaty does not require compliance with the obligation in case of such contradiction, the requested state needs not to do so.

5 Surrendering process

5.1 An execution of an extradition request granted by Thailand as a requested state

When Thailand is requested to execute an extradition request, Thai authority shall consider the request based on a treaty and domestic law. If there is not a treaty, the domestic law shall be solely applied. The Thai authorities dealing with extradition are those under administrative power and judicial power. The authorities under administrative power are the Cabinet, Ministry of Foreign Affairs, Office of the Attorney General, Thai Royal Police, and Department of Correction. The authorities under the administrative power shall consider whether an extradition request shall be executed or not. The court, which is under the judicial power, shall consider the execution request based on legal proceedings. If it complies with conditions set forth under the relevant laws and regulations, the court shall have an order to confine a person sought for to be extradited to the requesting state. As for the execution to be

proceeded by authorities under the administrative power, when an extradition request is submitted through diplomatic channel under the supervision of the Ministry of Foreign Affairs, the Ministry shall pass the request to the Office of the Attorney General. After the Attorney General, as the central authority under the Thai Extradition Act, considers the request, if an offence committed by such person is one of those prohibited to execute the extradition such as a political offence, the execution of the request shall not be granted. Then, it shall be sent to the Ministry of Foreign Affairs so that the government can refuse the requesting state. The case shall be ended after the Cabinet approves the refusal of extradition.

If the request meets all requirements set forth in the Extradition Act and a treaty (if any), a public prosecutor shall submit request with the court so that the court can issue the arrest warrant of a person sought for extradition. After such person is arrested, and the public prosecutor shall submit the case the Bangkok Criminal Court where the case shall be considered if the prosecutor's case has sufficient evidence to prove that the person sought is to be extradited according to the conditions set forth in the Extradition Act, B.E. 2551, and the extradition treaty (if any). During this process, the person sought has the right to defend his/her case. If the court, after thorough consideration from the hearings, finds that the case is not prohibited by law or treaty such as it is not a political offence , the case is still in a period of prescription , and it complies with the conditions, the court shall have an order to confine such person to be extradited. It should be noted that it is not authority of the court to order that any persons will be extradited or not, but it is authority under the administrative power. Though the court has an order to confine such person to be extradited, extradition request can be refused if the government considers that it should not be executed.

5.3 **Extradition request submitted by Thailand as a requesting state**

When an accused commits an offence in Thailand and escapes to a foreign country, it is authority of the Attorney General, the Central Authority, to submit an extradition request through diplomatic channel to the state where such person is residing. In case where there is an extradition treaty between Thailand and the requested state, the Attorney General as the Central Authority can directly submit its request to the Central Authority of such requested state as prescribed in the treaty. However, the address where such person resides must be found prior to submitting the request. It is authority of an investigator to find out where

the person sought is located, this includes to contact INTERPOL to find such address. If such address cannot be found, the arrest warrant of such person shall be sent to states all over the world. Sometimes, INTERPOL is requested to contact states so as to find such address and to arrest such person. This is the most effective channel. Especially, if such person was in high position, a leader of state, and a famous person, his movement is known widely. It is easy to find his address and request a state where he is residing to arrest and bring him to extradition process if the case complies with extradition conditions. At present, extradition has economic and political dimensions. Sometimes the suspect uses his economic or political power as a gap in international law to escape from the extradition process. There is a case study to support this argument. It is a case of Mr. Worayuth Yoowittaya[9] (BBC-News, 2020).Reuters reported that the Thai Royal Police explained that Thai court had issued the arrest warrant with a charge of causing death by dangerous driving and took cocaine. As a result, member states of INTERPOL shall identify where he is residing "so that he shall be extradited to be on trial." Thai Royal Police presented to Thai BBC on 6 October 2020 that it informed INTERPOL to issue INTERPOL Red Notice[10] for Mr. Worayuth on 30 September 2020 so as to request member states to extradite the suspect to face trial at a Thai court. And this request shall be executed or not depends on those member states. The Red Notice issued by INTERPOL does not give authority to police in any states to arrest him. The police must follow domestic laws of their states. There were 3 offences submitted to INTERPOL for Red Notice issuance as follows:

1. causing death by dangerous driving;
2. causing damage to a person by dangerous driving without helping an injured person and not immediately inform official;
3. took narcotics of category 2 (cocaine).

Extradition of Mr. Worayuth shall be requested through diplomatic channel proceeded by the Office of the Attorney General. The request shall be submitted to states where he appears. Currently, there is nothing hinting his address. Thai authority thus cannot submit its request. It is noticeable that although the Red Notice of INTERPOL was sent to all member states, there has not been evidence about him. As being the heir of the brand Red Bull which is one famous brand of beverage, Mr. Worayuth who is wealthy and spends luxury life abroad has not so far been found.

Case study of Mr. Taksin Chinnawat[11]

Mr. Taksin Chinnawat is a Former Prime Minister of Thailand who was accused of committing fraud in purchasing land located at Ratchadapisek Road which he gained great benefits whereas his country lost money. Then, he was prosecuted by Public Prosecutor. The Court of First Instance and the Appeal Court ruled, that he was guilty as charged. He lodged an appeal against the Appeal Court's judgement, and he was also granted bail. Then, he escaped to a foreign country. At that time there was coup de' etat, so he requested political asylum in the foreign country where he was issued its passport which he used it when he traveled around the world. In fact, there is a reason to believe that INTERPOL knew when he traveled from a country to a country because he at that time he run international business, trade and investment which could bring benefits to the country he was residing. Until now, he has not yet been extradited to Thailand to serve the punishment according to the judgement of the Supreme Court. The Thai government has tried to diplomatically negotiate with countries where he was hiding to surrender him to Thailand, but those countries did not grant cooperation as expected.

CONCLUSION

At present, there many factors affecting extradition, such as, diplomatic relation, politics and economy. A person who commits an offence to be extraditable knows the way to escape justice. Moreover, if such person was in high position, the enforcement of extradition treaty, and international cooperation based on reciprocity is ineffective which shall affect enforcement of extradition law. Although process of extradition is executed with respect to the conditions prescribed by law to bring such person to be punished, the final decision belongs to the government of a requested state. A person shall be extradited or not depends on the government consideration of a requested state although the extradition is executed according to international agreement on extradition.

The author would like to reflect that cause of failure in extradition is status of a person sought for extradition. If such person is an influencer who can give effect on economy of a state in which he is residing, it is obvious that the extradition of such person shall not be executed. Extradition is an international issue which must be executed uprightly, fairly, and ethnically, and a state shall perform its duty to cooperate with its contracting party with sincerity so as to suppress crime at both domestic and international levels .

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Principles of Non-Discrimination against Trading State Party of Powerful Country on the basis of World Trade Organization "Case Study Banning Thai Coconut Products"

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Abstract— The principle of Non-discrimination of the World Trade Organization (WT0) aims to provide fairness to all member countries by means of the Most Favored Nations Treatment and National Treatment under the General Agreement of Trade and Tariffs (GATT). Accordingly, the free trade has been promoted in all regions of the world. However, many WTO members resort to take advantage of general exceptions to the non-discriminatory practice by invoking Article XX of WTO in disguise, thus affecting the free trade principle of WTO.

Index Terms— *Non-Discrimination GATT, Banning Thai Coconut, Exceptions of Article xx.*

INTRODUCTION

After the World War II, the world community had the same goal in developing the global economy to revive. Accordingly, the World Trade Organization was established and became successful as a result of borderless trade and promotion for free trade at both bilateral and multilateral levels. These resulted in the trade being expanded and it covered all regions of the world.

As WTO main objectives include to ensure that all countries can trade equally, the organization therefore came up with the Non-discrimination principle among state members under GATT. Importantly, such Non-discrimination principle comprises the Most Favored Nation Treatment and National Treatment. Ironically, while the Non-discrimination principle has been expected to help facilitate free trade, it has become a tool for the world economic power states which have relatively advanced technologies and advantage in developing equipment and tools for manufacture. This is different from many developing and least developed countries which often face difficulties in affording expensive technologies for various aspects including human health and environmental protection. Such difficulties are drawback for the competition in the world market as they are often used by the world economic powers as the tools for trade barrier. For example, the United Kingdom and the United Sates banned the products mixed with any part of coconut from Thailand, citing the use of animal labor in the manufacturing process. The details of these cases will be discussed later.

WTO's Agreement concerning International Trade

The World Trade Organization (WTO) is an international organization which provides frameworks for facilitating interactions on international trade among member states by means of international agreements and instruments namely "Multilateral Agreement on Trade". Only member states which recognize this agreement will be bound to obligations or rights set forth under the agreement.

At present, WTO is the international organization on trade. It is the international organization having the most member states. It also has over multilateral agreements covering various issues, including goods and services sectors, as well as obligations related to the protection of intellectual property concerning trade (Martin Dixon Robert C. Sarah W, 2011). It should be noted that, among the important agreements under the WTO framework, this article aims to analyze the Principle of Non-Discrimination.

Principle of Non-Discrimination

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WTO's member states shall not discriminate the imported goods from other parties. This principle on Non-Discrimination appears in Article 1, paragraph 1 of GATT 1994 which stipulates that "…any advantage, favour, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other contracting parties (Martin Dixon Robert C. Sarah W, 2011). This provision requires all member states to treat one another equally without any discrimination. No special privileges or treatments will be granted to any state other than others. The goal of Non-Discrimination could be achieved if member states adhere to the Most Favored Nations Treatment and National Treatment discussed below.

I. Most Favored Nations Treatment Principle (MFN)

MFN is an important legal principle of WTO which plays a crucial role to support the non-discrimination principle towards the goods imported from or exported to WTO member states at the border crossing point and international port. In so doing, a granting state is obliged to grant privileges to a beneficiary state on the "same category of matter" as it grants any privileges to a third state.

In Anglo-Iranian Oil company case, the International Court of Justice (ICJ) ruled that the treaty is the "attachment point" between a beneficiary state and a third state which enable the latter to claim the rights under MFN from a granting state. The GATT is therefore considered as "ingenious" shorthand to legal process which a granting state is bound to grant MFN rights to a third state although it does not want to. However, both granting and beneficiary states may specify in the treaty between each other that the beneficiary state shall not claim MFN rights more that those stipulated in GATT although the granting state actually grants privileges to a third state more than a beneficiary state.

It is important to note that there are exceptions of MFN as follows:

1. Generalized System of Preferences (GSP)

GSP is a unilateral act that a developed country grants privileges on customs taxes to the goods of a developing country by means of waiving or reducing customs taxes.

It is the most important international trade system for developing countries. Thailand has been granted the privileges from this system for over thirty years in exporting goods to industrialized countries, thus causing Thailand's trade has been expanding constantly (Somboon Sangiambut, 2562). On the contrary, many least developed countries argue that the MFN does not benefit them because they are not able to compete with the developed countries on the basis of equality. As a result, the WTO commission usually grants special GSP by reducing taxes lower than normal to such least developed countries (Rangsan Tanapornpun, 2563).

In general, there are two categories of GSP:
1. GSP for customs reduction: an general GSP usually granted to the lower middle income countries.
2. GSP –LDC: a reduction of customs taxes to the least developed countries. The taxes are reduced at special rates.

Thailand has been granted general GSP from various countries, namely Australia, Belarus, Japan, Kasakstan, New Zealand, Russia, Turkey and the United States (UNTAD, information in October 2019).

2. Economic Integration

Article 24 of GATT allows the establishment economic integration which helps facilitate trade privileges among member states. This approach could be done in the form of setting up the Customs Union or Free Trade Area.

I. National Treatment Principle

Under the National Treatment Principle, member states shall not treat foreign goods differently from local ones which is likely to cause disadvantage for such foreign goods in trade competition. The National Treatment shall begin when the foreign goods cross the border or have processed through the customs clearance. The National Treatment could be conducted in two forms as follows:

-Taxation
- Local Regulation

As discussed above that the essence of GATT supports free trade among member states through two main principles, i.e., Most Favored Nation Treatment, and National Treatment, WTO members could however be exempted from GATT rules if there are certain situations according to article XX of GATT. These include the protection of human, animal or plant life or health, or relating to the conservation of exhaustible natural resources according to paragraph

(b) and (g) consecutively.

Obviously, the interpretation of the above exceptions is very important. Otherwise, it will be against the principle of

Pacta Sunt Servanda and could become a huge burden for developing countries, most of which are not able to afford expensive facilities as far as export industry is concerned.

In this regard, the Dispute Settlement Panel and Appeal Body explains that the WTO member shall apply the exceptions in any subparagraph carefully as follows:

1. WTO members shall not implement the exceptions in a manner of arbitrary discrimination among the countries having the same or similar situation.

2. WTO members shall not implement in a manner of unjustifiable discrimination among the countries having the same or similar situation.

3. The implementation of such exceptions shall not be a disguised restriction on international trade (Jaruprapa Rakpong, 2560).

Thailand's experience with article XX: a case study of banning Thai products with a claim of animal torture and natural resources protection

Thailand ranks 9th in the world for the country exporting coconuts, while the export of the coconut milk, which is coconut products came first in the world ranking for export and has the export value of 12,000 million baht. Thailand's market for exporting coconuts and coconut products are European Union, UK. Australia and China (Wiriya Likitwong, 2563). However, People for Ethical Treatment of Animals (PETA), a non-governmental organization, recently launched a campaign against Thai coconut products in the United Kingdom. The NGO published the pictures and video clips featuring monkeys were collecting coconuts inside the monkey training school and coconut farms in Surat Thani and Chumporn, two southern provinces in Thailand. PETA also reported that Thai farmers tortured the monkeys by capturing "Kang Monkeys" (a specie of monkey) to brutally train them to collect coconuts.

Furthermore, the NGO published the pictures showing the some monkeys being chained with used tyres and others being detained in big cages. The pictures also included the monkeys being detained in a cage on a truck and shaking the cage in an attempt to escape from the caretakers. It claimed further that there are eight farms forcing monkey labor to collect coconuts for exporting them to the world market. The male monkeys were forced to collect as many as 1,000 coconuts per day (human can collect only 80 coconuts per day), and if any monkey resisted to do the job, his tooth will be removed.

The PETA's reports mentioned above resulted in many large department stores in England took the coconut products from Thailand out of the shelves, and stopped buying as well as importing such products. These department stores voiced their opinion in the same direction that "as the ethical retailers, we do not allow the use of monkey labors in our merchandises". In addition, the England government also cited the information revealed by PETA to bar this kind of products from Thailand, resulting in huge impacts on the export of the Thai coconut-processed products.

In U.S.A, Costco is the latest retailed store that ceased to sell Chao Koh coconut milk, following many stores such as Giant Food, Food Lion, Stop & Shop. As Ingrid Newkerg, PETA's president put it "no buyer wants to see monkeys in chain and being treated like coconut collecting machines. She also echoed that Cosco did the right thing to deny the exploitation from animals (Matichon Online, 2563).

Both UK and USA argued that they had banned the coconut products from Thailand because forcing monkeys to collect coconuts was the animal torture, thus allowing them to ban such products for the sake of protection of animals and conservation of natural resources under Article XX (b) and (g) of GATT which are the exception of the principles of the Most Favored Nation Treatment and National Treatment. Ironically, the reason given by the UK and USA for such banning discussed above seems to set a precedent that the collection of coconuts can by no means be made by animals.

Interestingly, Leslie Sponsel, professor of anthropology, Hawaii University and Dr. Poranee Natadecha Sponsel suggested that according to their studies about the relationship between humans and monkeys in the southern part of Thailand, they found that there was no evidence of the cruelty related to the use of the monkeys. In fact, monkeys are like pets in the families. Interestingly, some families treat monkeys like family members. For example they are usually showered by the owners and brought to coconut farms by sitting on the motorcycles behind the owners. Research also found that the monkeys are well looked after and trained like children (Reporter Journey, 2563).

Therefore, it is important for those who have accused Thailand of torturing monkeys for coconuts collection to reconsider. Moreover, they should understand that using

monkeys to collect coconuts is like using animals to do some works in the West. These include using dogs to control sheep or using other animals such as tigers, lions, elephants incircus to entertain the audiences in exchange for money.

WTO and its mechanisms for settlement of disputes

When any dispute related to international trade arises, any WTO member involved in such dispute is, under WTO rules, required to submit a request to the Dispute Settlement Body in order to reach the Agreement on Dispute Settlement Understanding (DSU) without applying for the confronting dispute settlement. The DSU will ensure that the diplomatic relationship and coordination between working agencies between the states involved are not too much affected. Also, this approach provides an opportunity for those involved to settle their disputes quickly and without complication.

It should be noted that the DSU has its uniqueness for the dispute settlement, ranging from consultation for nominate the panel, appeal, endorsement of hearing minutes, and compliance. Clearly, the DSU has some characters which is different from both domestic and international settlement of dispute as follows:

1. Combination between Trade Negotiation and Ruling for Dispute Settlement

The conflicting members cannot request for nomination of the panel unless they attend the consultation process and such process has been passed for at least 60 days. During such a period of time, both conflicting members are able to discuss and exchange ideas so that they can avoid the confrontation according to ordinary legal process.

In addition to such consultation, there is also mediation process. And in order to come to conclusion as soon as possible, the panel will not accept any third party's opinion despite its interest in the dispute such as the NGOs on Environment or Labor unless such opinion has been formally integrated in the complaint made by conflicting member's government.

2. Use of two-tier Panels

If the consultation is not successful, the parties can request for panel nomination comprising three experts in the disputing area. After the dispute has been determined at the stage of the panel, if any party does not agree with the panel's decision, it is entitled to appeal to the Appellate Body, comprising seven members to revise the legal issues previously decided by the panel.

3. Certain Period of Time for the Dispute Settlement Process

There is clear timeline at each stage of dispute settlement. This enables the conflicting parties to be able to estimate the period of time from the beginning to the end of the process. For example, the beginning of the consultation until the day of endorsing the panel's decision shall not exceed 9 months, and not exceed 12 months as from the day of the appointment of the panel in the case there is an appeal.

4. Member is entitled to enforce the decision by means of seeking Compensation and Suspension of Concessions.

This measure will apply if the party who lost the case is not able to comply with the decision within the agreed period of time, or does not want to comply with such decision. This measure is regarded as a guarantee for the member state affected from the use of measures against the WTO rules. However, such compensation and suspension of the rights shall be made in the same proportion as the damages occurred.

Conclusion and Recommendation

The banning of the Thai coconut products by citing Article XX (b) and (g) of WTO as discussed above has affected Thailand's trade a great deal. This article therefore suggests Thailand improve the situation by actively taking actions in accordance with the WTO's framework on dispute settlement as follows:

1. Inviting representatives of the WTO members concerned, and reporters, both local and international, to observe and consider the facts of the accusation towards the Thai entrepreneurs on animal torture by using monkeys to collect coconuts.
2. The entrepreneurs should request the Thai government to file a claim with the WTO in order to have the opinion voiced by the third party heard by the panel as discussed above.

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The development of "Chok" local plant in kind of palm to "Jungsui" Creative dance uniform in Thailand

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Abstract— This research aimed to 1) study the history of "Chok" local plant in kind of palm 2) The development of the "Chok" local plant in kind of palm to Jungsui to creative dance uniform. This research was conducted by qualitative methods including data collection were documentary research, observation, in-depth interviews and two focus groups with stakeholders. Content analysis was applied to analyst the research. The finding shown that 1) The "Chok" was a local southern plant with a growth period of about 15 - 20 years 2) Mining miners have created wisdom by bringing "Chok" local plant in kind of palm that it was not invented to "Jungsui" Creative dance uniform because it was resistant to wear to prevent rain. By discovering the steps of the invention of the seven steps. 3) Phang Nga province had a variety of local plants. However, Expanding tourism made the encroachment of natural areas. So., Local ecosystems and plants were destroyed. While, some local plants that were worthless. Beneficial of "Choke" was applied to create an economies at both micro and macro levels and able to maintain the inventive local Thai wisdom knowledge the "Jungsui" when applied to craftsmanship and creative costume.

Index Terms— *"Chok" local plant in kind of palm / Jungsui / Creative dance uniform*

I. INTRODUCTION

Arenga Westerhoutti Griff or sugar palm is a local plant in the southern part of Thailand. It has the characteristics of palms. It grows on rock mountains. It takes about 20 years from the beginning growths of seeds to the trees bearing fruits. After bearing the fruits, the trees bloom and wilt. While the trees are wilting, the barks are useful. However, most gardeners let the tree wilt and rotten.

The Chinese people have immigrated to the southern part of Thailand since the reign of King Rama 3. It was because China had three major problems: 1) the cultural revolutions, 2) the corruptions, and 3) the famine resulting in the poverty.1 The Chinese people combined the wisdom of the mining profession with the ways of lives. Importantly, the fibers of the sugar palm trees were the materials of Jungsui (i.e. rain coats) for mining. Presently,

the rain coats are rare. If the rain coats are not conserved, then the wisdoms that have been inherited from generations to generations will be lost. Accordingly, the researcher acknowledged the benefits from using the barks in order to provide economic values and to promote the cultural tourism by producing the rain coats from the barks without the economic values and developing the rain coats in order to the costumes for creative dances by combining the ideas and invention processes in order to create different artworks and to innovate handicrafts for the tourism market.

The key of the study and applications of the development of the barks into the rain coats for the creative dances was the production of the rain coats with the local plants (i.e. sugar palm trees).

Since the mentioned information had never actually been collected by any scholar in any field for further

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applications, the researcher was interested in studying the main characteristics of the local plants in order to develop the barks into the rain coats for the creative dances.

II. RESEARCH OBJECTIVES

The objectives of this research article were 1)To develop the barks into the rain coats 2) To develop the rain costs into the costumes for the creative dances.

III. RESEARCH METHODS

A. Research Design

In the research study, the development of the barks into the rain costs for the creative dances, the scope of the study was defined by the researcher as follows.

1. Population and Samples

Population and samples were selected with the purposive sampling method and divided into three groups as follows.

1) The key informants included an expert(s) with experiences and expertise in arts and cultures, wisdom teacher(s), personnel of Tourism Authority of Thailand (Phuket Provincial Office), and the head of the sugar tree planting group in Bang Toei Sub-District, Mueang District, Phang Nga Province.

2) The casual informants included the personnel of Tourism Authority of Thailand (Phuket Provincial Office) and the members of the sugar palm planting group in Bang Toei Sub-District, Muang District, Phang Nga Province.

3) The general informants included the student of the performing arts program of Phuket Rajabhat University and the Phuket Women's Empowerment Fund.

2. Research/Data Collection Sites

Bang Toei Sub-District, Muang District, Phang Nga Province

3. Research Instruments

1) Relevant documents and research studies

2) Structured and unstructured interviews

3) Participatory and non-participatory observations

4) Small group meetings

5) Workshop

4. Data collection

This research study used the qualitative research method by collecting the data from the documents such as

1) the cultural and historical developments, identities, and wisdoms of Phang Nga Province (the history of the local plants or sugar palm trees were studied);

2) and the other cultural documents about the biodiversity and geography of the Andaman coast of the southern part and Phang Nga Province.

The field study consisted of the interviews as follows.

1) The unstructured interviews had the open-endedquestions.

2) The structured Interviews comprised of three parts with following details.

Part 1 was the personal information about genders, status, educational background, primary occupation, monthly income and other information.

Part 2 included the main questions about the history of the local plants (i.e. sugar palm trees) in Phang Nga Province.

3) The in–depth interviews were unstructured interviews for interviewing the key informants and casual informants regarding the history of the local plants (i.e. sugar palm trees) in Phang Nga Province and the changes of the social contexts affecting the cultivation and fertility of the local plants.

4) The observations consisted of the followings.

4.1) The participant observations were such as participating in the local plantation activities in Phang Nga Province.

4.2) The non-participant observations included observing the general conditions of the research site by the researcher. The researcher studied the ways of lives and various local wisdoms according to research objectives.

5. The focused group was formed by the researcher in order to collect data from the educators and practitioners sharing their opinions, analyzing problems analysis, and providing suggestions for the study, the development of the barks into the rain costs for the creative dances. The conversation plans, date, time, place, questions, appointments, and invitations were prepared by the homogenous group members.

IV. RESULTS

Results indicated that 1. The Results of the Development of the Sugar Palm Barks into the Rain Coats

The Chinese mining workers created the wisdoms by developing the barks of the local plants that were valueless into the raincoats because the rain coats were durable for mining. The fibers of the barks of the palm trunks were called "Rok Chok" by the villagers and used for creating

the rain coats that were found in the mines in Kathu District. These are the wisdoms inherited from generations to generations. The rain coats are kept at Wat Pra Thong, Thalang District, Phuket Province.

Figure 1: The Barks of the Trunk

Source: Yuttapong Tonpradoo (on 15th February 2018)

Figure 2: The Barks of the Trunk

Source: Yuttapong Tonpradoo (on 15th February 2018)

The Seven Production Steps of the Rain Coats
    1) Take the stems out of the barks.
    2) Soak the barks in the salt water in order to make the barks thicker and stickier, and then completely sun-dry the barks.
    3) Align the completely sun-dried barks on the same floor.
    4) Cut the barks according to the plans.
    5) Backstitch the barks with needles and threads.
    6) Bind the barks with ropes in order to produce the durable rain coats.
    7) Sew the prepared buttons on the rain coats.
Then, the production steps were used by the researcher as the guidelines for developing the rain coats for the creative dances.

Figure 3: The Rain Coat

Source: Yuttapong Tonpradoo(on 2nd April 2018)

Figure 4: The Rain Coat

Source: Yuttapong Tonpradoo(on 2nd April 2018)

Figure 5: The Researcher and Colleagues' Creative Costumes of Female Dancers
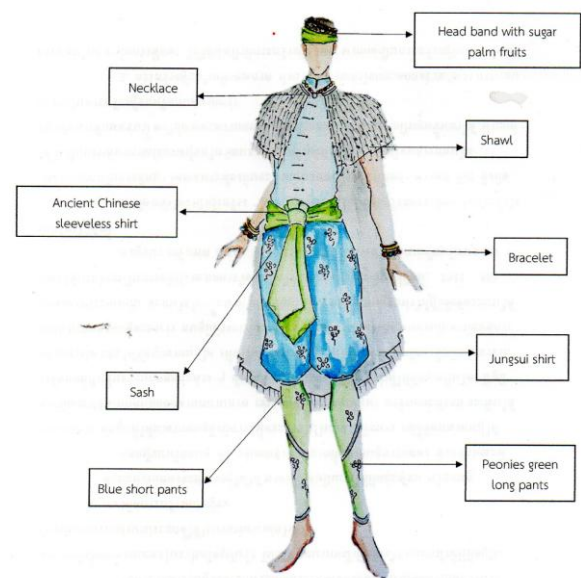
Figure 6: The Researcher and Colleagues' Creative Costumes of Male Dancers

2. The Results of the Development of the Rain Coats for the Creative Dances

The applications of the sugar palm barks for the creative dances were not studied and publicized systematically, and the local philosophers were old. Consequently, the mentioned wisdoms may be lost. According to the results, the rain coats that were suitable for men and women were produced by the researcher The results can be applied by the public, private and civil society sectors at the 1) policy level and 2) the micro and macroeconomic levels in order to create the main identities of communities for sustainable economic development and to adapt the rain coats to the changing social contexts. Regarding the applications of the creative dances, the ways of the lives of the mining workers were applied by the research to the creative dances as suggested by the experts.

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Figure 7: Creative Dance 1

Source: Yuttapong Tonpradoo (on 18th November 2019)

Figure 8: Creative Dance 2

Source: Yuttapong Tonpradoo (on 18th November 2019)

Figure 9: Creative Dance 3

Source: Yuttapong Tonpradoo (on 18th November 2019)

V. Discussions

The results from the workshop with the Key and Casual Groups provided the following suggestions. After conducting the study, the knowledge was transferred to the organizations about Phuket's cultures and educational institutes. The knowledge should be transferred to the public in order to promote the identities of Phang Nga Province and locally economic groups in order to produce souvenirs for generating household incomes. The knowledge had the following significances: 1) learning the diversity of the local plants indicating the geographical characteristics Of Phang Nga Province, 2) reducing the problems of product design plagiarism, and 3) using the local materials for designing the costumes in order to provide the jobs for the local people, to sustainably develop the economy, and educate tourists about the prides and identities of the local communities as well as make the local people value the benefits of the local plants. The results were novel. These can be the knowledge and applications to handicrafts in order to promote the tourism of Phang Nga Province.

VI. Recommendations

A. Recommendations for Practices

The results from the workshop is Key and Casual Group give feedback as follows: After conducting research Researchers should transfer the knowledge gained to Phang Nga culture, Related agencies, educational institutes and It should be publicized for publicizing the important identity of Phang Nga Province or local economic integration to produce souvenir products for generating household income. Result in 1) The create learning about the diversity of local cultures 2) Able to reduce the problem of plagiarism, product design, resulting in less piracy problem. This is to create jobs for local people and create local economies. As a result, tourists learn and be aware of the local identity. To promote the economy, which there are no such researches, scholars have studied Organized to create knowledge for the conservation of culture in Phang Nga

CONCLUSION

In conclusion, the findings from the analysis of qualitative showed that 1. The "Chok" was a local southern plant with a growth period of about 15 - 20 years 2. Mining miners have created wisdom by bringing "Chok" local plant in kind of palm that it was not invented to "Jungsui"

Creative dance uniform because it was resistant to wear to prevent rain. By discovering the steps of the invention of the seven steps

1) Take the stems out of the barks.

2) Soak the barks in the salt water in order to make the barks thicker and stickier, and then completely sun-dry the barks.

3) Align the completely sun-dried barks on the same floor.

4) Cut the barks according to the plans.

5) Backstitch the barks with needles and threads.

6) Bind the barks with ropes in order to produce the durable rain coats.

7) Sew the prepared buttons on the rain coats.

Then, the production steps were used by the researcher as the guidelines for developing the rain coats for the creative dances.) 3. Bringing "Chok", a plant with no economic value Able to design costumes to promote tourism and promote sustainable tourism culture.

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Guidelines for the Development of Restaurant Businesses: Providing Online Food Delivery Services in Khon Kaen, Thailand

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*Abstract— **This research aims to find the guidelines for developing the restaurant businesses providing online food delivery services in Muang District, Khon Kaen Province, Thailand. Qualitative research was utilized to conduct the research. There were two techniques: namely, Documentary research and In-depth interviews (IDI) with seventeen key informants with at least five years of business experience. The study found that 9 M (Man, Money, Materials, Management, Morale, Message, Marketing, Menu, and Mindset) led to the business-critical successes. Place or distribution channel was an important factor for service marketing mixed factors. The finding showed three service innovations: 1) New service concepts, 2) New service processes, and 3) New service business models for the guidelines to develop restaurant businesses providing online food delivery services.***

Index Terms— *Guidelines for Development, Restaurant Businesses, Online Platform Food Delivery Services*

I. INTRODUCTION

The restaurant business statistics in the United States indicated the failure rate of more than 60% of all restaurants. Many entrepreneurs have had problems since the first year of operation, and nearly 80% will shut down after five years of operation. From 2016 to 2017, the number of independently owned restaurants in New York declined by 2%. Also, from 2005 to 2015, there were many reasons for restaurant businesses failures. One of the most common causes was the restaurant's location, consumer behaviors, and restaurant management. The same was true for restaurant businesses in Thailand, where there was a lower 5-year retention record [1] [2], while the past five years (the year's 2014-2018) Thai SMEs Center provided information that the restaurant businesses using an online food delivery platform in Thailand have continued to grow by 14%, growing more than the non-delivery restaurant businesses with an average growth of only 3 - 4% per year.

Moreover, the Kasikorn Research Center analysis had assessed the restaurant business situation in Thailand in 2020, concluding that revenues of approximately 400 billion baht or a decrease of 2.65 - 3.65 billion baht compared to the revenue of 2019. Restaurant businesses in Khon Kaen province, adjusted to do business by maintaining service standards following clean, safe and hygienic principles following the announcement of urgent measures to prevent the spread of the epidemic and infectious disease COVID 19 for restaurant businesses, including finding out how to provide food via online food delivery channels [3] [4]

With technology, demographic structure and consumer behavior changing. Including the restaurant management innovation that must create competitiveness for the businesses' survival; this makes the researcher need to find the guidelines to

develop the restaurant business through online food ordering platforms that are in line with today's consumer behavior. It will

also need to search a new service model and restaurant management innovation. This research case study focused on Khon Kaen, Thailand.

II. RESEARCH OBJECTIVES

This research aims to find a guideline to develop the restaurant business providing online food delivery services in Khon Kaen province, Thailand.

III. RESEARCH METHODS

A. Research Design

This research was qualitative research. Documented research had established criteria for document selection according to Scott's guidelines (1990); (2006) as follows: 1) Authenticity, 2) Credibility, 3) Representativeness, and 4) Meaning. [5] The scope of the content focuses on the theoretical concepts related to Business Factors (4Ms) [6], Service Marketing Mixed (7Ps) [7], and Service Innovation [8].

Semi-structured Interview form with the open-ended question was a research tool for In-depth interviews (IDI) with seventeen key informants who have at least five years of experience in the business, divided into two groups as follows: 1) Thirteen Restaurant business owners who provide online food delivery service and 2) Four of the platform service providers in online food delivery. The data collection method was done until the data reached the Theoretical Saturation, so the researcher stopped collecting data. The method for determining the reliability of the data was Triangulation. There are two aspects of triangulation: 1) Data Triangulation by examining the source of time, place, person, and 2) Theory triangulation. [9] The data analysis began with the extraction of sound recordings from mobile phones in writing. Holistic analysis and Content analysis like the correlation of the study results lead to the conclusion of the key variable issues. [10]

B. Research Process

The research process of this research has developed into six steps consisted of 1) analyzing concepts 2) creating the research tool 3) examining the research tool 4) data collection 5) finding the results and 6) the research discussion, conclusion and recommendation.

C. Research Conceptual Framework
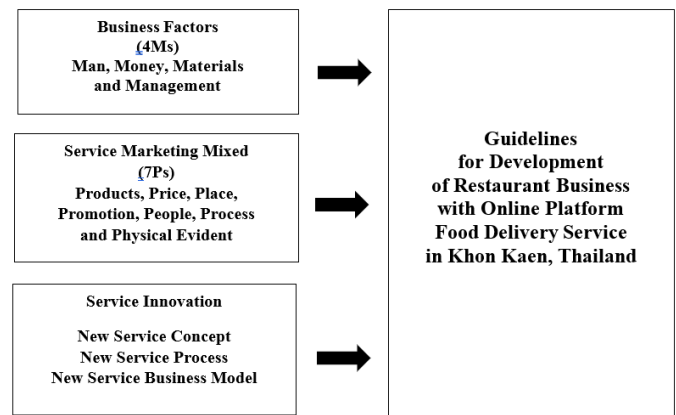
Fig.1 Research Conceptual Framework

IV. RESULTS

1. Business Factors for running restaurants providing online food delivery in Khon Kaen, Thailand

From the research, it was found that Business Factors for running a restaurant providing online food delivery in Khon Kaen, Thailand was 4-M as follows:

1st M - Man: the business was considered in term of the quality and development of employees' potential regularly in the organization. This included the management of training to increase knowledge and work skills 2nd M - Money: the businesses had the investment allocation for restaurants 3rd M - Material: Be updated with the most current food items in the online ordering service. To facilitate the customers at any time and 4th M - Management: planning to control the business's operating expenses and search for distribution channels of food and beverages to increase income for the organization. The organization focuses on dividing work according to position, function according to the structure and organization chart with the emphasis on work orders, monitoring, supervising, and coordinating customer service.

However, research has found the restaurants' success factor providing online food delivery from 4 M to 9 M, with the 5th M being M - Morale: this gives importance to personnel involved in business operations. The 6th M was M - Message was to provide information to customers, build networks and communication systems for customers. The 7th M was the M - Menu, which is a unique menu or signature menu. The 8th M is M - Marketing was the process of communicating the value of a product or service to the customer, and the 9th M was M - Mindset. That needs to be flexible and up-to-date for business efficiency as shown in Fig.2

Fig.2 Develop fundamental business factors from 4M to 9M

Type of Restaurant	Sample Number	9M Business Factors for running the restaurant providing online food delivery in Khon Kaen, Thailand								
		Man	Money	Materials	Management	Morale	Message	Menu	Marketing	Mindset
Casual Dining	01	√	√	√	√	√	-	√	√	-
Fast Dining	02	√	√	√	√	-	-	-	√	-
Fast Dining	03	√	√	√	√	√	√	√	√	-
Fast Dining	04	√	√	√	√	-	-	√	√	-
Fast Dining	05	√	√	√	√	-	√	√	√	-
Fine Dining	06	√	√	√	√	√	√	√	√	√
Fine Dining	07	√	√	√	√	√	√	√	√	√
Fast Dining	08	√	√	√	√	-	-	√	√	-
Kiosk	09	√	√	√	√	√	-	-	-	-
Fast Dining	10	√	√	√	√	√	√	√	√	-
Casual Dining	11	√	√	√	√	-	√	-	√	-
Casual Dining	12	√	√	√	√	-	√	-	√	-
Casual Dining	13	√	√	√	√	-	√	√	√	-

Fig.3 9M business factors for running restaurants providing online food delivery services in Khon Kaen, Thailand

From Fig.3, it can be explained that there were thirteen leading and legendary restaurants providing online food delivery in Khon Kaen, Thailand. [11] It was divided into four types of restaurants. namely, 1) Fine dining 2) Casual dining 3) Fast dining and 4) Kiosk. [12] The figure 2 shown that All types of restaurants of the 13 samples accounted for 100% of the total restaurant samples. There were 4 M fundamentals in business factors: Man, Money, Materials, and Management. In all restaurants, 6 samples accounted for 46% of the total restaurant samples. There was a factor in operating the business of M - Morale. Especially, Kiosks and Fine dining restaurants place a high priority on employee morale. As for M-Message, which was to provide information and build good relationships with customers, it was available in the categories of Fast dining, Fine dining and Casual dining, account for 54% of the total samples. Fast dining, Casual dining, and Fine dining restaurants operate the M-Menu, accounting for 69% of the total samples. The menu has been adjusted to be in line with the online food ordering service, especially Fast dining. Kiosk restaurants focused on the 4 M fundamentals over M - Marketing, while other restaurants focused on. For Fine dining restaurants the main factor in the online food delivery business were M - Mindset, and 9 M were Man, Money, Materials, Management, Morale, Message, Menu, Marketing, and Mindset.

2. Service Marketing Mixed for running restaurant providing online food delivery in Khon Kaen, Thailand

From the research results, it was found that 1) Product factors: The restaurant business places great emphasis on the food items that focus on creating unique and signature menus of the restaurant referring from interviews of owners of Casual dining, Fast dining and Fine dining restaurant. "Our restaurant was constantly developing food products. Adjusted the menus and created a new and signature food menu. Using quality, local ingredients, and food trends to always respond to customer needs." 2) Price factor: Casual dining, Fast dining, and Kiosk restaurants set selling prices through online ordering, with the selling price rising at 5 - 10 Baht per menu, while Fine dining restaurants set prices for dine-in and selling through the online food ordering platform at the same price. There was only a charge for the food delivery. "Fine dining restaurant owner said that "Most of the food menus sold in the restaurant and those that provide food delivery services were through online applications. Both of them were sold at the same price, but the restaurant selects the menu that was easy to cook and does not take a long time and can be packaged in a container for delivery to the customers quickly, keeping the quality of the food for a good taste." Some platform service providers offer free online food delivery service. 3) Place factor: At most dining in all restaurants, there was often a place to serve food for taking away and delivery through online platforms, including outside catering services. However, some Kiosk type restaurants were more focused on selling in front of the restaurant than the online platform. Nevertheless, selling like this was quite high in distribution costs. Sometimes it was not worth the selling price and raw materials' cost, so it was canceled." While, some platform service providers have expanded their service branches to cover 77 provinces in the whole of Thailand. 4) Promotion factor: The discount coupon with a minimum order condition, buy one get one free for food order, Offer the combination set menu to create value, and attract consumers. including the free delivery charge. 5) People factor: All types of restaurant businesses were importance on service for both consumers and delivery food driver. Some of fine dining restaurant mentioned that "Our restaurants always had a standard of procedure in training employees before starting work." While the Platform service provides insurance driver during the operation. It has a high coverage limit of up to 200,000 baht, a leader of a platform service provider said. 6) Process factor: The process had convenient ordering process. There were various payment methods. Able to contact the service provider as soon as the problem arises and had an accurate delivery situation monitoring system. Also, food and beverage cost control were important for each restaurant and 7) Physical evidence factors: The food menu was clearly categorized and easy to understand. Food photos with a unique menu and showing the identity of the restaurant were provided. The pictured food items were

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exactly the same as the image used to advertise the menu, it had a promotion, an online food ordering app and restaurant information complete. In addition, some platform service providers provide the tablet that was a tool for online ordering between restaurants and customers to their partner outlets.

3. Service Innovation of Restaurant Business Providing Online Food Delivery Service in Khon Kaen, Thailand

According to the research, it was found that Guidelines for the development of the restaurant business providing online food delivery service in Mueang District Khon Kaen Province, Thailand has the following service innovations.

1) A New Service Concept was introduced in restaurants offering online food delivery. Food and beverage services were available in Take away, Outside catering service, Monthly lunch and/or dinner delivery in tiffin styles, and Ready to cook for the home cooking set which consisted of raw materials, other ingredients, including a combination set menu called the combo set. Food and beverage according to various festival themes in order to present new food items to customers. Many Casual Dining and Fast Dining restaurant owners, allowed the same direction for the platform service provider in online food delivery in Khon Kaen within many new service concepts. 2) "We have played an important role in service improvement such as proper containers for food delivery, environmentally-friendly designed packaging materials, quality service of chef, staff and driver for customers' satisfaction." More than 70% of restaurant owners especially, Casual Dining and Fast Dining did this and agreed with the same emphasis. For platform service providers, mostly they were concerned about a good drivers' qualifications: politeness, good service and the accountancy of the routing. While, each type of restaurant has to try to produce with uniqueness, lift up the local wisdom and match nationwide and international levels. 3) Some fine dining restaurants which provide online food delivery exceed customers' expectations by offering some special food of the day or some new food items to provided complimentary. 4) Process of cooking before delivering time was managed for working efficiency. referring to "Our restaurant, normally, we set cooking time to no more than fifteen minutes per menu." Ten of Thirteen restaurants mentioned this. 5)Some of the Fast Dining restaurants, which have more than one outlet, had their own delivery system and riders for online food delivery service. However, they still used the services of leading platform online food delivery companies as well. 6) Platform service providers in online food delivery, set the new service process in their platforms, adding customer engagement channel in the application, development service delivery system especially creating marketing promotion strategies for upselling food through the platform. "Our platform provides attractive marketing promotion to boost up revenue for our restaurant partners as a local platform service provider mentioned." 7) Many restaurant businesses have changed the business model to be the "Cloud kitchen model" which was a restaurant without a storefront. Provide food service by delivering food to customers. While the store is mainly used for cooking and accepting online food orders through the application. Their goal was competitiveness in expanding branches and reduces operating costs. There were also more channels to distribute products through online trading channels using various related online applications or marketing tools. "Our restaurant business has adjusted a business model to focus on the central kitchen for cooking and delivering food in the form of delivery or picking up food at restaurants. Rather than sitting and eating at the restaurant" which is a new service business model 8) A new service monetization model that adds value to the restaurants' foods, such as the introduction of the Omakase concept, the Chef's Table in Japanese style, refers to indulging the chef', that was, eating food without us choosing the menu itself. For each menu served, the chef arranges it for us. Most of the food menus were selected from the finest ingredients and the best cooking processes that brings out the value the flavor and the uniqueness of the food for the customers to experience, taste and experience. For example, Fine Dining and Casual Dining restaurant businesses adopt this form in their mode of operation. And also creating new market segments that were unique and able to build a cooperative network of trade partners in delivering quality raw materials in the supply chain system as shown as Fig. 4

New Service Concept	New Service Process	New Service Business Model
• **Novel Offering** Take Away Outside Catering Online Food Delivery Ready to Cook for Home Cooking • **Beyond Expectation Service** • **Product Development** • **Service Improvement**	• **Delivery Service Process** • **Cooking Time Control Process** • **Marketing Strategies**	• **Cloud Kitchen** • **Omakase / Chef 's Table** • **New Market Segment** • **Build Cooperative Network**

Fig.4 Service Innovation of Restaurant Business Providing Online Food Delivery Service in Khon Kaen, Thailand

V. DISCUSSIONS

The result found that 9 M consists of Man, Money, Materials, Management, Morale, Message, Menu, Marketing,

and Mindset which was a fundamental business factor for running restaurant providing online food delivery in Khon Kaen, Thailand that related research to [13] Unileverfoodsolution institution mentioned that there were four factors namely 4Ms to running a successful restaurant by learning how Money, Materials, Manpower, and the Market can make restaurants successful. According to the concepts of Dokchan Kammeerat, Boonthan Dokthaisong, and Imron Malulim (2009) [14] and Harold Koontz (1980) there were four key administrative resources: 1) Human Resource Management (Man) 2) Money, 3) Material and 4) Management [15], which was as the same way direction with Wichian Witthayudom (2007) [16] Somkid Bangmo (2009) [17]. agreed with this concept. However, four additional important factors were discovered, including 8 factors, namely M-Market, M-Machine, M-Morale, and M- Method While Wirach Wirachnipawan offered factors in modern management 9 M as follows: 1) Man 2) Money 3) Material 4) Management 5) Market 6) Morality 7) Message (Public Relation and giving the information) 8) Minute (Time Management) and 9) Measurement [18]

Based on the research results in the service marketing Price and Process were consistent with the results of Natthasat Panyana and Watcharapot Sub-Sa-nganbun (2019) that focused on organizing the process system. When the cooking process was easy and convenient, it took a short time to cook and come up with reasonable prices with food quality which was consistent with the research results on service innovation related to New Service Process in Cooking time and Delivery service as well. [19] From the research, it was found that the Place or distribution channel factor which was a very important factor in the current restaurant business. Which has both online food ordering channels Including the development of channels to reach more products and services. This was consistent with the research of Sirikanya Inkhumwong (2018) [20] and Arunrat Onyen (2017) [21], and was also in line with the concept and theory of Rattawit Thongpakdee (2018) [22], Belanche (2020) [23], Cahyani (2020) [24], which said that Place or the distribution channels of the restaurant business that provide online food delivery service should have a variety of distribution channels to create greater awareness and reach to make it easier for consumers to order food. Especially the Generation Y group who used and were very familiar with technology. The research on the restaurant business's product factors focused on the food items that emphasize the creation of unique restaurant menus. This was consistent with the research of Nisa Tamsampaolert (2017) [25], while Natthawut Rungsathienphuthon (2016) [26] and Supanan Wattanawichit (2017) [27] found that the quality and nutritional value factors of food were more important. Furthermore, from the research results on People factor, the

results were consistent with Supanan Wattanawichit (2017) [27] work that emphasizes human factors related to service quality.

From the research results, it was found that the restaurant business development approach for online food delivery service in Muang Khon Kaen District, Thailand depended on the development of service innovation. There were 3 service innovations as follows: 1) New Service Concepts, 2) New Service Processes, and 3) New Service Business Models, which were presented as the new concepts of product development, product line extension, changing of service providing. service Improvement and having a concept of serving customers beyond expectations. There are were improvements in the process, service procedures, and marketing strategies in order to increase the channels for generating income and build relationships with customers, which were in line with Peder Inge Furseth's concept of the service innovation triangle (2013) [8] and Christopher Lovelock and Lauren Wright. (2002) [28] that emphasize the value of service delivery and create a good experience for customers through human resource development and to foster innovation in service delivery through technology in various platforms and also new business models [29] such as cloud kitchen [2].

VI. RECOMMENDATIONS

A. Recommendations for Practices

1) There should be a study of integrated innovation management in addition to service innovation in order to develop the business to be modern and prepare for the changes in the world that come quickly.

2) Further studies of risk and crisis management models should be undertaken due to high uncertainty in today's businesses, both internal and external factors such as hygiene management. Safety in life and property or the global public health situation regarding epidemics and COVID 19 infections, climate change, floods or wildfires, etc.

3) A conceptual framework for sustainable management that considers society, economy and the environment. It is important to apply this approach to the development of the online food delivery restaurant business.

B. Recommendations for Further Research

1) There should be quantitative research and data collection with a sample of consumers to understand and know the insight behavior of consumer service decision in order to plan the marketing strategy.

2) In qualitative research, the number of key informants who own each type of restaurant businesses should be equal amount, including in-depth interviews with other stakeholders, such as business partners, suppliers, delivery drivers. As well as data collection by focus group discussion.

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3) If the research area is expanded to a wider area, regional or national or international, the data obtained can be analyzed, compared, and can be made into a management plan for restaurants providing online food delivery platforms in each area.

CONCLUSION

In conclusion, the findings from the qualitative analysis showed that 9 M, which consists of Man, Money, Materials, Management, Morale, Message, Marketing, Menu, and Mindset was a key success factor for running the restaurant providing online food delivery in Khon Kaen, Thailand. Place or distribution channel was an important essence for service marketing mixed factor. The finding has shown three service innovations: 1) New service concepts of product development, product line extension, changing of service providing. service improvement and having a concept of serving customers beyond expectations. 2) New service process from Delivery service process, Cooking time control process and Marketing Strategies 3) New services business models such as Cloud Kitchen and Food delivery ordering through an online application platform for the guideline to develop the restaurant business providing online food delivery services.

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Online Instructional Activities for Creative Internet Use of Tertiary Students in Thailand

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Abstract-The research aims to study the development of the online instructional activities) for creative internet use of the tertiary students (OIA) in Mahachulalongkornrajavidyalaya University, Khon Kaen Campus (MCUKK), Thailand. The objective of this study therefore is to examine the OIA which researchers have built to use with 30 undergraduate students, selected by a Cluster Sampling in the Faculty of Education. The data collection of this study was conducted by means of both quantitative and qualitative research instruments. The research results are as follows: 1) the OIA consists of the following procedures: (1) planning and orientating the learning activities, (2) motivating to use the internet with creativity, (3) fostering students to create leaning purposes and self-evaluation, (4) presenting individual methods of internet use, (5) presenting the ways to use the internet with creativity, (6) fostering Inquiry-Based Learning, (7) presenting given tasks from selected situations, (8) evaluating by using a sociometry technique and (9) summarizing the aspects of the internet use. Also, the finding reveals the students were very satisfied with the OIA and the positive behaviors of the learners in using the internet with creativity.

Index Terms— *Online Instructional Activities, Thailand, Creative Internet Use*

I. INTRODUCTION

The National Education Act 1999 sets out the aims and principles of education management in Section 1, Section 6 that the educational management must develop Thai people to be a complete human being in terms of body, mind, intelligence, knowledge and virtue, ethics and culture of living and happy co-existence [1]. Today, the development of technology for education, religion, arts and culture can be seen from the governmental policies focusing on creating wisdom, morality and ethics in the educational development in consistency with the National Strategy (2018-2037) aiming to develop Thai people to be endowed with virtues, knowledge, good physical and mental health to support them to live together happily [2].

For the management of instructional processes at the tertiary education, learners should have a foundation of knowledge and skills that are sufficient to meet with the desirable characteristics set by the Office of the Higher Education Commission. As mentioned in Thailand Qualifications Framework (TQF), there are five standards

for learning outcomes: (1) ethical and moral development, knowledge, (2) cognitive skills, (3) interpersonal skills and (4) responsibility, and (5) analytical and communication skills which includes the capacity to use the information technology and communications [3]. The ethical and moral development aims to help students have ethical and responsible habits for their personal and public lives in the ways consistent with high moral standards with ability to resolve conflicts [3].

In the era when the information technology is developing and changing rapidly, as a result, the communication becomes more convenient and more efficient than in the past. The continuous development of computer system is seen in all kinds of business sectors and now it is more important and the technology becomes a necessary part in life of human beings. Due to the speedy technological change, it leads human beings to adapt themselves for the betterment of their quality of life. The education with the technological advanced supports is an important process that helps humans in every generation adapt and develop

themselves to meet the needs in the middle of such change. The education therefore must be constantly adjusted and improved accordingly based on the technological change.

In 2019, the Electronic Transactions Development Agency has conducted a survey of the Internet use of Thai people and reported that Thai people used the Internet approximately 10 hours and 5 minutes a day, detailed as using at work for 9 hours and 48 minutes and using in the day-off about 10 hours and 54 minutes. Interestingly, Thai people used the Internet with the e-Commerce value of 3,150,232.96 million Baht or 3.15 Trillion Baht while the percentage of the Internet use increased about 14.04% [4].

Based in the survey, the Internet was partly used to create a new community as it is an important communication tool which can do various online activities such as online education, business and entertainment. Nowadays, more and more people are living in the online society and the social media is used as a communicator to share the user-generated contents, experiences, articles, photos and videos to the others in their networks. This leads the use of the Internet for social networking to be a popular method among Thai youngsters and also there is a high tendency in other generations.

The Internet is a media that plays a huge role in Thai society. For the creative and safe use of the Internet in Thai society, Thailand Hotline has offered a hotline to ensure that the contents on the Internet are appropriate, legal and not harmful to the society [5]. However, this operation is not new in Thailand. Since 2007 (cited in Bangthamai) [6], the Ministry of Education has appointed a working group to create a curriculum for enhancing the creative use and safety of the Internet in educational institutions. In other words, this operation was to encourage young people to use the Internet in a creative and safe way in order to prevent the use of inappropriate websites. The goal of this operational project was to adapt the instructional methods of ICT courses from the old format, which solely focused on technical teaching on the ways to use the Internet or to search for information, to a new way of teaching that focuses on critical thinking of the Internet use such as choosing a website that is valuable and useful, and promotes learning. Alternatively, it was the method to teach children to be aware of online threats from virtual persons through the active learning activities. Since then, the educational institutions under the Ministry of Education have applied many instructional techniques to promote the safety and creative use of the Internet. Somehow, it is to change the behaviors in using the Internet of young people. Based on the literature review, one of the techniques applied to meet the set goal above is the participatory

learning technique (PLT) as it allows the learners to be alert at all times, resulting in children being cultivated to think and analyze carefully, to build skills in using the Internet, to reduce the online risk-taking with the strong behavioral immunity that arises from the inner of a well-formed mind [6].

Besides PLT, the self-directed learning (SDL) is an alternative instructional process, suitably used in changing the manners in using the Internet. This technique allows the learners to set their own learning methods by diagnosing their learning needs, choosing goals and learning materials, connecting with others, finding resources, supplementing the learning plans, and evaluating their learning with or without help from the others [7]. In some ways, it is called 'self-taught technique' that make people to learn more by themselves or learn better than the person who is the recipient waiting for the teacher to pass on knowledge even if he/she is studying intently. This is due to the self-taught people have their own learning aims, individuality and directions. Also, they are highly motivated and able to live on their own as learning becomes a part of their lives life. [7]. It is said that SDL has no age limit because the learners have the opportunity to make decisions based on their interests and needs. SDL consists of the eight essential elements: opening of learning opportunities, effectiveness, initiative and independent learning, responsibility, love, creativity, having the optimistic future, and ability to use educational and problem-solving skills [6]. These elements can be applied in all kinds of the self-learning processes.

At the tertiary education level, PLT and SDL are applied as the instructional techniques to develop the graduates in Thailand to have abilities to express their opinions, to make decisions, to work together effectively, to be responsible for oneself and society and to seek knowledge on oneself. This includes those who are studying in MCUKK. As a Buddhist university, teaching morality together with developing the lifelong learning skills of the students becomes an important mission of the university. Today, the educational operation supported by the advance of information technology plays a particularly important role in promoting learning the campus. To meet with TQF criteria set by the Office of the Higher Education Commission, that is the desirable characteristics of the graduates in using the technology, the university has to develop the specific instruction for altering the students' manners in using the technology in the creative ways. Therefore, the online instructional activities (OIA) has been created to use with the students in MCUKK in 2019. It seems to be impossible to change all the manners in using the technology, the OIA

so aims only to alter the behaviors of the students in using the Internet in supports of PLT and SDL. Based on this operation, this study aims to examine the development of OIA to promote the creative use of the Internet of the students in the campus.

II. RESEARCH OBJECTIVES

The objective of this study is to examine the created OIA in terms of appropriateness of its components based on the students' satisfaction and effectiveness (levels of practice) in altering students' behaviors in using the Internet.

III. RESERCH METHODOLOGY

In order to answer the questions regarding to the appropriateness of its components and effectiveness of OIA as mentioned, the research method and some details should be clarified for the reliability reasons.

Population and Samples:

The population of this research included 120 students (First-Fifth years) studying in the Bachelor Degree in Teaching Thai Language and Teaching Social Sciences, Faculty of Education, MCUKK. Selected by Cluster Sampling, the samples of this study included 30 students who were willing to join the OIA.

Variables

Independent variable: OIA
Dependent variable: appropriateness of OIA and behavioral change effectiveness of OIA

Research Tools

In order to carry out the research, the researchers have used to following tools in the operation: (1) The questionnaire (Q1) probing the conditions of learning and guidelines to design the OIA; (2) Focus-Group of five experts in the relevant fields; (3) the OIA; (4) the questionnaire (Q2) probing the attitude (satisfaction) of students with the OIA's components and (5) the evaluation form (F1) of students' behaviors in using the Internet with creativity and (6) interview form (F2).

Research Process

This research process is divided into 5 phases based on the ADDIE model [8] [9] as follows:

Phase 01: Analysis

The researchers have studied and analyzed the conditions and guidelines to design OIA through analyzing all relevant documents, research as well as the data obtained from response to Q1.

Phase 02: Design

The researchers have designed OIA focusing on its essential elements such as objectives, structure and content order, learning activities and strategies, evaluation criteria and lesson flowchart.

Phase 03: Development

The researchers organized Focus Group of five experts in the related fields of study to get advices and suggestions to develop OIA. Then the edited OIA was tried out with a small group of non-samples (10) in other faculties in the campus. Then, the formative evaluation has been conducted. Finally, OIA has been revised and ready to be implemented.

Phase 04: Implement

OIA for creative internet use has been implemented with 30 samples, selected by Cluster Sampling for one semester (June-October) in 2019.

Phase 05: Evaluation

After the implement, the evaluation of OIA has been conducted by using Q2, F1 and F2. Finally, all the gathered quantitative data were analyzed by the following statistics: Percentage, Mean, Standard Deviation and t-test (dependent). For the qualitative data were analyzed by the descriptive analysis based on the inductive reasoning method.

IV. RESULTS

OIA is defined as the instructional activities for the proper use of the Internet or using the Internet in the awareness of its online benefits as well as hidden danger. It is designed to use with the tertiary students at MCUKK in order to promote the creativity use of the Internet according to TQF set by the Office of the Higher Education Commission and to respond the National Strategy mentioned above. In regards to the appropriateness of OIA components, OIA consists of nine important components and each has statistically been rated (Mean and S.D.) as follows: (1) planning and orientating the learning activities (4.87, 0.07), (2) motivating to use the Internet with creativity (4.20, 0.38), (3) fostering students to create leaning purposes and self-evaluation (4.60, 0.36), (4) presenting their individual methods of internet use (4.42,

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0.48), (5) presenting the ways to use the internet with creativity (4.74, 0.43), (6) fostering IBL (inquiry-based learning) (4.47, 0.43), (7) presenting given tasks from selected situation (4.33, 0.40), (8) evaluating by using a sociometry technique (4.60, 0.40) and (9) summarizing the aspects of the internet use (4.62, 0.20). The overall mean value of the students' attitude towards OIA was a very high level (4.54, 0.34), meaning that the students were very satisfied with OIA components and its appropriateness.

In relations to the evaluation of students' behaviors in using the internet with creativity, the overall measured mean score indicated a moderate level of practice (3.10, 0.42). The measurement was divided in five aspects: (1) use of internet that was safe for others (3.40, 0.37); (2) self-protection against internet misuse (3.22, 0.44); (3) use of the Internet that is beneficial to oneself and others (3.02, 0.28); (4) suppression of offenders on the Internet (2.81, 0.41); (5) guidelines for constructive use of the Internet (2.60, 0.59). The comparative result of the students' learning indicates that the statistical mean value (t-test dependent) of the Internet use with creativity of the students after learning with the OIA was higher than that of pre-learning with the statistical significance level of .01.

V. DISCUSSION

1) OIA was developed based on the psycho-development principle to design of the teaching-learning activity model of Kaemmanee [10], who spoke of guidelines for psychomotor domain. The OIA consists of the nine procedures as mentioned above. All the elements had been designed based on the results of study and analysis of the conditions and guidelines gathered from relevant documents, research and the data obtained from response to Q1 in line with the Creative Internet Guidelines to use the Internet to develop students in terms of teaching and learning [6]. Of all the components, the majority of the sample were satisfied with the first component most: (1) planning and orientating the learning activities. The reason for this is that they want to know the nature of OIA and the necessary and importance to comply the stages of OIA. Based on the interview, most of students were satisfied with PLT as it allows them to build skills in using the Internet with creativity based on their interests and interactions with the teachers and classmates. More importantly, this technique allows the students to choose to get involved and connected with the classmates they like through their commonly used social network applications. This is consistent with the research results of Patreeya 2019 [11] mentioning the nursing students used the Internet to

connect with the others through Facebook, Instagram and Twitter. In relations to the additional content, the researcher has added the moral teaching while introducing and operating OIA in each procedure. All the moral doctrines were taught under the main principle of Buddhism called 'the Three Admonitions or Exhortation of the Buddha'. And, they are: not to do any evil, to cultivate good and to purify the mind [12]. However, as the samples are the students in the Buddhist University, teaching the morality does not seem to gain their interests much and they have already got used to the Buddhist doctrines. To solve this issue, the case studies on the online threats and advantages of using the Internet for success have been exemplified for the students, together with teaching morals.

In relations to SDL, it provided a huge advantage to OIA as it raises the self-responsibility to the students in line with the Hiemstra's principle [13] mentioning that SDL is self-learning with responsibility as a basis. SDL is the process in which an individual takes the initiative to diagnose a learning need and studies planning, requires learning resources and learning evaluation. In other words, the learner is the one who studies and searches for and creates knowledge. And, they have to be responsible for performing tasks. It may or may not rely on help from others. On the other hands, based on the interview, some students got straggles in creating their own ways of learning. Some confessed that often they cannot control the feelings for example sometimes they visited pornography or gambling websites. The solution for this, the students are advised to be aware of the advantages and disadvantages of their actions and try to avoid misconducts and some were given advices and guidelines.

2) The evaluation of creative internet use behaviors of the students in 5 areas has been conducted as follows: (1) Use of internet that is safe for others: (1.1) know and understand of the Computer Act 2007; (1.2) good attitudes towards the Internet use; (1.3) plan before using the Internet; (1.4) check data validation before communicating with the Internet; (2) self-protection against internet misuse: (2.1) select learning content; (2.2) show the idea of using the Internet creatively; (2.3) explain how to use information obtained from the Internet; (2.4) have skills in solving problems in studying; (3) use of the Internet that is beneficial to oneself and others, detailed as follows: (3.1) share knowledge with others; (3.2) have interpersonal relationships; (3.3) honor the contributions of others; (3.4) participate in learning; (4) suppress offenders on the Internet: (4.1) debate against websites that are not beneficial to society; (4.2) promote action against offenders on the Internet; (4.3) inform offenders to district officials;

(4.4) be a role model for others; (5) guidelines for constructive use of the Internet: (5.1) establish the guidelines for creative use of the Internet, (5.2) produce media that promotes creative use of the Internet, (5.3) cite the others' works, (5.4) disseminate the information to promote the creative use of the internet through various media. Based on the interview, most students mentioned that some evaluation items in each aspect are too difficult to follow. For example, the students found it hard to know and understand of the Computer Act 2007 in details. Although the overall mean score of the behaviors of the students is in the moderate level of the practice, the evaluation result of the students' learning indicates the positive behavioral changes of the Internet use the students after joining OIA. This is to be concluded that OIA created has a positive effect on the behavior of the studied students.

VI. SUGGESTIONS

1) The OIA for the internet use with creativity should be used to study the different groups of samples such as those studying in other universities.

2) To gain better results of the OIA, it should be used to study the larger size of the population within the university.

3) The university or stakeholders should use the results of this study to regulate policies of the Internet use with creativity of the students.

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Business Continuity Plan for Tour Operator in a Crisis of COVID 19 in Thailand

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Abstract— This article aims to study and analyze the concepts and theories of the business continuity plan and the crisis management concept to be used as a guideline for the survival of tour operators from the COVID 19 outbreak in Thailand. According to the Scott Guidelines (1990); (2006) for data selection criteria, Content was analyzed and synthesized from secondary data. The study found that the business continuity management plan of small and medium tour operators does not yet have a systematic planning process. Nevertheless, there were steps to resolve the problem in the short term. Furthermore, it requires cooperation in many sectors of business stakeholders. Ten step-by-step business continuity plan (BCP) in critical conditions was used. While BCP for the epidemic COVID 19 outbreak focusing on the PPRR model: 1) Prevention, 2) Preparation, 3) Response, and 4) Recovery corresponding to the efficient communication, maintenance of health and hygiene, digital and technology linkage, social distancing, and compliance with the COVID-19 control measures following the policies of the respective governments. Moreover, there were four elements for the business continuity plan: 1) Risk Management Plan, 2) Business Impact Analysis, 3) Incident Response Plan and 4) Recovery Plan.

Index Terms— *Business Continuity Plan, Tour Operators, Crisis Management, COVID 19*

I. INTRODUCTION

The World Economic Forum's statistics report on the country's competitiveness in tourism business 2019 found that Thailand has 35.5 million foreign tourists entering the country annually, with a total of $ 1,620 spent on tourism. According to the research, US dollars per person accounted for $ 50.75 billion in tourism to the country, equal to 9.6% of Thailand's GDP, and employed in the service sector labor market for 2.44 million people in the country [1]. On High-Growth SME Support Initiatives in Nine Countries: Analysis, Categorization, and Recommendations, it was found that promoting SMEs with high growth must be a specific policy (High Growth SMEs Policy) in addition to the general SMEs promotion policy (SMEs Policy), which is Accelerator (Acceleration Factor) economic expansion of that country. [2]

For Thailand, several supporting factors have driven the Thai Tourism Industry to continue to grow. By the National Strategy Framework, modern SMEs can access capital more easily by promoting competitiveness for businesses to have potential. This is highly volatile, both externally and internally, especially in rapidly changing global situations and many uncertainties. That cannot be predicted, such as the dispute between the United States and Iran. US-China trade war, Australian bushfires, Volcanic eruptions in the Philippines, Earthquakes in

Turkey, Floods in Brazil, Locusts in North Africa. Lassa fever occurs in Nigeria, PM2.5 dust in Thailand, and the global epidemic of coronavirus disease (COVID-19) has changed humanity's dynamics and lives worldwide. Living in a New normal.

The impact of the COVID-19 outbreak on life and livelihoods worldwide is beyond measure as the war against the virus is ongoing, involving more than 210 countries, with more than 428,652 deaths and infections. The infection is estimated to be 7.7 million. [3] It continues for the first time this epidemic has occurred, a global crisis that threatens human existence after World War II. Moreover, it has wide range of economic, social, and environmental impacts. The Thai tourism industry was also directly affected.

This does not include digital transformation and technology disruption, and past crises such as the Persian Gulf War. Tom Yam Goong Crisis in Thailand, Hamburger Crisis in the USA, Tsunami in Japan, SARS and Bird Flu in China, Political Crisis of Yellow-Red Shirt., etc.

For this reason, the study of Business Continuity Plan (BCP) and crisis management. It is an important and necessary tool for tour operators of the Thai tourism industry in a critical situation and a guideline for forecasting directions and finding strategies for planning the rehabilitation of business operations after the crisis.

II. OBJECTIVE

To study and analyze the conceptual and theories of the Business Continuity Plan and Crisis Management concept and apply it to be a guideline for Tour Operators survival from a COVID 19 outbreak situation in Thailand.

III. STUDY METHODS

To achieve the objective of this study. It had established criteria for document selection according to Scott's guidelines (1990); (2006) as follows: 1) Authenticity, 2) Credibility, 3) Representativeness, and 4) Meaning. [4] The content scope focuses on the theoretical concepts related to Business Continuity Plan, Crisis Management, Tour Business, and COVID 19 outbreak situation, used as a tool for analysis and synthesis.

The educational process was as follows: 1) Data collection from articles from books, journals, academic articles, and research articles 2) Content analysis and synthesis 3) The data obtained from the analysis was used as a base for thinking about the content synthesis framework for obtaining the Business Continuity Plan for Tour Operators in a Crisis of COVID 19 in Thailand.

IV. LITERATURE REVIEW

Business Continuity Planning (BCP)

"Business Continuity Planning" (BCP) aims to prepare, procure and maintain, control, and competence for the organization's overall management that can continue during a disruption. The International Labor Organization's report [5] addresses four pillars (4Ps) models to develop BCPs: People (safety and security), Process (internal processes such as supply chain, logistics planning), Profit (management of risks to products/services) and Partnerships. With the massive loss of life and capital, the COVID-19 epidemic demonstrates society's incredible ability to stand together to face unprecedented and insurmountable challenges. [6]

A Business Continuity Plan (BCP) is a plan that has processes in managing the business to be carried on

continuously. Without interruption Even though the business is in an unusual state or in a critical state Experiencing threats from external and internal factors Which are problems and obstacles to business operations The Business Continuity Plan (BCP) that adheres to ISO22301 standards following the business continuity management standard consists of 10 steps used in the preparation of BCP as follows: [7]

Step 1) Set goals, scopes, and teams.
Step 2) Key Activities and Recovery Goals
Step 3) Essentials for the restoration of core activities
Step 4) Risk Assessment - Understand the disaster situation.
Step 5) Prevention and mitigation.
Step 6) Urgent response in the event of a disaster.
Step 7) Business Continuity Strategy for a Fast Recovery
Step 8) Be financially prepared.
Step 9) Practice to optimize the BCP and
Step 10) continuous review and development.

(Asia-Pacific Economic Corporation: APEC, 2014)

Business Continuity Planning (BCP) for Tourism

The Cayman Islands Department of Tourism from Kenya had set a Business continuity planning tool for their tourism businesses. Lead and guide for their tourism micro, small, and medium tourism companies. [8] "We are now in an unprecedented business environment for the Cayman Islands, where many of our tourism businesses are facing the closure of our borders in March. "While it cannot be guessed, it is likely to be a catalyst for the safety of our country and the well-being of our people. Every travel business has to plan for a major disruption beyond hurricane season. In the first half of 2020, we will face earthquakes, fires, and global pandemics. Their Business continuity planning consisted of Business profile, key product &service, employee & essential roles-tasks, key customers, Business impact analysis, Recovery plan, COVID-19 business resumption strategy, Emergency response, etc.

For Tasmania Business Continuity Plan, in general, starting with 1) identify damages that may affect the business. 2)Incorporate these mitigation strategies into your business continuity plan. 3) Get insurance with the level of coverage appropriate for the business. [9] Emergency information, communication, preparation, and recovery planning are provided for staff, business visitors, and guests.

Business Continuity Planning (BCP) for Post-COVID

Business continuity planning for the epidemic. It should begin early and focus on 4-stage epidemic planning using the PPRR model: 1) prevention, 2) preparation, 3) response, and 4) recovery [10]. The proposed actions should be consistent with the workplace relationships and existing health and safety frameworks. In the planning stage, you must: 1) Identify core services and essentials to maintain supply chains. 2)Identify staffing arrangements such as telecommunication, succession planning, and skill crossings.3) Protect the health of employees. 4) Develop communication strategies for employees, customers and suppliers. 5)Consider financial implications such as cash flow, cost increases, and insurance coverage. 6)Make contingency plans for the unexpected. Schedule tests and plan improvements. There were four elements for business continuity plan: 1) Risk Management Plan 2) Business Impact Analysis 3) Incident Response Plan and 4) Recovery Plan. [11] Developing a business continuity plan for the post-COVID 19 was a way to ensure that the organization could continue operating even when the business environment in crisis. From the impact of the COVID-19 epidemic. Many organizations use a hybrid infrastructure that integrates an on-premises platform and the cloud or the internet. [12] It's a great way to take advantage of new technology while reducing costs. However, it also means that you need to develop a plan to ensure employees have continued access to the tools and information they need to do their job, even when working remotely.

COVID-19 Business Continuity Plan: Five ways to reshape a global company require forward-looking and proactive decisions to maintain business continuity and build resilience. [13] 1) Continuously prioritize public safety and participation. Keeping employees safe and well-being in the workplace was essential. Companies must start or expand flexible work arrangements and other policies that allow people to work remotely and safely. New resources used in work must be allocated. Besides, companies must establish consistent communication. 2) Adjust strategy for business continuity. Most businesses are likely to experience significant disruptions in their normal operations and face lower operating performance throughout the COVID-19 crisis at the beginning of this crisis. It is important for companies. Evaluate short-term liquidity. Companies will want to instill discipline in monitoring short-term cash flows to anticipate cash flow pressures and intervene promptly—strict discipline in working capital, especially debtor collection and inventory building management. 3) Communicate with relevant stakeholders. Clear, transparent, and timely communication

is essential to building a platform to transform the business and to receive ongoing support from customers, employees, suppliers, creditors, investors, and regulators. 4) Make the most of government support policies. The central and local governments in China have issued financial, social security, and tax-related policies to companies, including the China Securities Regulatory Commission (CSRC) interim policy on refinancing recently listed companies in the United States, United Kingdom. Moreover, many other developed countries have announced amendments to tax and financing policies. 5) Build flexibility to prepare for the new normal. Once the COVID-19 outbreak is controlled, companies need to review and renew their Business Continuity Plan (BCP) to assess how existing BCPs are working. If there are defects, companies must identify the root cause, such as the timeliness of their actions—lack of infrastructure. Labor shortages or environmental issues outside the company need to rethink their internal approaches, based on the lessons learned and a solid contingency plan, to build resilience and respond to future crises.

Crisis Management and Tour Operators

Crisis according to the Dictionary of the Royal Academy of Sciences (1999), meaning that the term "Critical to danger" is defined as "critical event," while the Oxford dictionary describes the meaning of crisis as "A time of serious trouble." Alternatively, the dangerous moment or is a time to make a decision." Crisis types are classified into two categories: 1) Natural crisis and 2) Human-induced crises. [10] Crisis Management in the Tourism Industry Beating the Odds? The textbook by Christof Pforr & Peter Hosie (2009) presents the PPRR Crisis Management Model, which focuses on 1) Prevention, 2) Preparation, 3) Response, and 4) Recovery. Also, there were two types and divided into six factors related to tourism [10] [14] [15] [16] [17] [18] as showed in fig. 1

Crisis Type related to Tourism		
Explanation	Natural-Made Crises	**Environmental Crisis:**
		Cries such as natural disasters, pollution and health phobias. for example, Tsunami in Japan, SARS in Asia, Australian Bushfires, Volcanic eruptions in the Philippines, Earthquakes in Turkey, Floods in Brazil, Locusts in North Africa, Lassa fever occurs in Nigeria, PM2.5 dust in Thailand and the global epidemic of coronavirus disease (COVID-19)
	Human-Made Crises	**Economic Crisis:**
		Cries such as recession, rising costs and unprofitability, economic volatility, competition and barriers to trade. for example, Tom Yum Kung Crisis in Thailand and Hamburger Crisis in USA.
		Political Crisis:
		Cries such as terrorism, government policy and international relations. for example, the dispute between the United States and Iran, Red Shirt & Yellow Shirt of Thai Political Issues in Thailand and Bali Bombing in Indonesia.
		Socio-Cultural Crisis:
		Cries such as unrest, crime and cultural conflicts. for example, 911 terrorism in USA
		Technological Crisis:
		Cries such as Computer system failure, fire, mechanical failure, and transportation accidents.
		Commercial Crisis:
		Cries such as Regulations, government intervention, competition, labor disputes, management decisions, and human error.

Fig. 1 Srihirun J., Adapted from COMCEC. (2017) UNWTO. (2011) Campiranon K. (2009), Henderson, J. (2007), Glaesser, D. (2006).

From research on the topic of the leadership of tour operators in crisis management and the formulation of modern tourism strategies to create creative competitiveness in the region of the Thai tourism industry, [19] The study found that from the past to the present leadership of tour operators in the Thai tourism industry in terms of crisis management, it was found that there was a lack of vision and creativity in proper management with situations. There were limitations in planning, long-term solutions, and no proactive plan. Integration in solving the problem is not yet fully possible and did not receive effective cooperation and coordination with stakeholders.

However, the future leadership of tour operators in the Thai tourism industry in terms of crisis management, the results of the research showed that leaders who are entrepreneurs in the Thai tourism industry must be creative, proactive, seeking new markets, broad vision, knowledge. Having the ability to resolve crisis situations by making urgent decisions, coordinating with the public and private sectors to assist tourists affected by the crisis. Build cooperation with the media and using modern technology in terms of strategic leadership in crisis management of the Thai tourism industry, leaders have to be responsible for making quick decisions. Strengthen participation in Both the public and private sectors.

For the future tourism industry regional creative competition, the results were found that the Leadership of tour operators in the Thai tourism industry must be brave enough to make decisions. Have the talent to solve problems immediately. Be creative and adapt quickly. The ability to communicate. Use of modern technology. Have a good understanding of the crisis. Have a wide vision, Up-to-date knowledge in many fields. Have the skills to build confidence to come back. Strategies for the new era of tourism in the Thai tourism industry. Travelers expect that during a crisis, they should ensure their safety as much as possible. He saw that the most appropriate post-crisis integrated marketing communication tool was the national identity. In the tourism business, it is expected that during a crisis, there should be direct communication with tourism operators regarding promotions. Furthermore, changes in tourism programs for safety the most appropriate post-crisis mixed marketing communications was the Internet at the highest level. [20] The tour operators and tourists agree that from experience, Thailand has communicated in the financial crisis. The most prominent and important tourism destination was that Thailand has a rapid response to the crisis. They used two-way communication to provide tourists with information and allow them to inquire about the situation. Besides, Thailand provides information about the crisis, what happened, when, where, and how violent it occurred. Furthermore, have further advice tourists on how they should behave to be safe. This can be explained by the Crisis Communication Principle of Kathleen Fearn Banks (2002) that if a crisis occurs, the responsible person needs to assess the situation and determine the communication guidelines. Under the realities of the crisis and crisis management plans have to be specific to the situation each time. Although the pad elements are similar, the information taken in the Operation plan for each situation is different. Every organization can encounter a crisis that, However, the organization needs to answer the kind of crisis it is and how it affects the organization. It will lead to the development and formulation of a communication plan. In a crisis in the next up, the public relations department and the relevant executives will define a communication plan. Within the action plan may include [21] 1) Determination of objectives 2) Crisis communications team

3) Crisis information that may occur to the organization 4) Guidelines for selection of informants (Media spokesperson) 5) List of emergency teams and personnel region 6) Media Manual 7) Negotiator with relevant units 8) Establishment of a control center Crisis communication 9) focus on key communication etc.

The Impact of Covid-19 Outbreak on the Tourism

Assessing the impact of the COVID-19 outbreak on international tourism [22]1) The world is facing a global health, social, and economic emergency due to the COVID-19 epidemic.2) Travel and tourism are among the most affected sectors, with a sharp drop in foreign demand amid global travel restrictions, including many of its borders closed.3) As a result of the COVID-19 epidemic, international tourism export revenues were $ 935 billion, more than 10 times the loss of 2009 under the impact of the global economic crisis. 4) Asia and the Pacific saw an 82% drop in arrivals in January-October 2020, the Middle East dropped 73%, while Africa is down 69% in the ten months. International arrivals in both Europe and America decreased by 68%.5). In contrast, international travel demand continues to decline; domestic tourism continues to grow in large markets such as China and Russia, where demand for most domestic air travel has returned to pre-COVID levels.6) Based on current trends, UNWTO expects international arrivals to drop 70% to 75% for the full year 2020, meaning international tourism will return 30 years ago.7) The estimated decline in international tourism in 2020 is equivalent to an estimated 1 billion loss of tourists and $ 1.1 trillion in international tourism revenues. This drop-in international tourism could result in an estimated economic loss of over $ 2 trillion in world GDP, more than 2% of the world's GDP in 2019. 8) Looking ahead, the vaccine's announcement and launch are expected to increase consumer confidence and help reduce travel restrictions gradually. 9) UNWTO's extended situation for 2021-2024 suggests a recovery in international tourism in the second half of 2021. However, a return to 2019 levels in terms of international tourist numbers may take 2 .5 years to 4 years, as shown in fig. 2
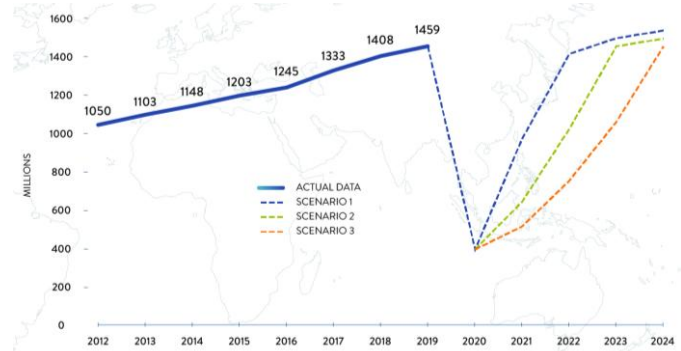
Fig.2 UNWTO's 2021-2024 Scenarios: 2.5 To 4 Years to Recover 2019 Levels International Tourists Arrivals

The recovery time for each situation is summarized as follows:

Scenario 1: Recovery in 2.5 years (mid-2023)
Scenario 2: Recovery in 3 years (end of 2023)
Scenario 3: Recovery in 4 years (end of 2024)

TMB Analytics assessed the impact of the COVID19 situation in Thailand on the trade and tourism sectors in the first quarter of 2021 based on three factors: 1) epidemic site severity, 2) dependence on trade and tourism, and 3) cases. From provincial economic activity (GPP), it was found that overall, Thailand had a 22% dependence on trade and tourism on GDP, including the country. Additionally, 6.9 million people are employed, which is expected to reduce the total income by more than 140 billion baht. The Thai government has stepped up remediation measures for those affected by the economy according to the level of business impact in each area, which employs 6.9 million people, including measures to help with the cost of living and all. Region according to the regulations of the Center for the Outbreak of Coronavirus Disease Management 2019. Strictly to remedy the epidemic situation back to normal as soon as possible. [23] From interviews with Thai tourism leaders in the article to revive Thai tourism in 2021 through the "COVID-19" nightmare crisis, Deputy Governor of Marketing Communications, TAT. Revealing the tourism market's direction after the new year, the COVID-19 crisis that the Thai tourism sector will not be the same. After this, it is expected that market competition increases, entrepreneurs have to adjust a new business vision model. "You need to turn your attention to the local market, reduce your dependence on a niche market, use digital technology to meet today's needs of online travelers, develop your business personnel, new skills, and increase your retention skills. Furthermore, improve quality. Besides, the hygiene

factor should be included in the marketing plan or the risk management plan." TAT has set up a domestic marketing strategy focusing on stimulating Thai tourism in Thailand under the Health & Hygiene framework. Domestic stability and sustainability focus on promoting hygienic tourism in the New Normal era in line with health destinations. International market: TAT emphasizes building confidence and creating a new image of Thailand as a Top of Mind Destination, emphasizing communication to build confidence in the image of Thai tourism's safety through the Amazing Trusted Destination campaign and produce advertising films. The name "Travel through Thailand" to take care of the hygiene of tourists. The Chairman of the Krabi Tourism Industry Council, commented that the tourism sector in Thailand would begin to recover, probably in the fourth quarter of 2021, the beginning of the year, foreigners cannot travel yet. Having a vaccine in the country is considered to build confidence among foreigners. The President of the Chiang Mai Tourism Business Association, said Chiang Mai is one of the five tourism cities in the country, with 70 percent of its GDP derived from tourism revenues since the outbreak of Thailand. COVID last March Coming to the tourism business is having a serious problem, not even one trip abroad. In the past, the government had the policy to stimulate tourism by launching a project to share happiness. Projects that we traveled together but helped stimulate the economy to a certain extent. The tourism sector analyzes the direction in 2021. Many agree that in 2021 foreigners will certainly not visit, so entrepreneurs have to adjust to survive. In contrast, the government had to reach out to help with the moratorium for the tourism business for a period of 3 years. Director of TAT, Phra Nakhon Si Ayutthaya Office informed that the tourism promotion activities must be revised and canceled. Alternatively, postpone them as appropriate, in line with the situation, emphasizing the New Standard, Safety and Health, or SHA.

Meanwhile, the Chief Executive Officer of Pattaya City, Chonburi Province, agreed that a new round of COVID-19 must be adjusted to stimulate the economy and travel in 2021 to increase safety in line with the Thai government's safeguard measures. [24]

V. DISCUSSIONS

Factors that will facilitate the recovery of tourism in the crisis of tourism operators. There are five things to consider:1) Pandemic: How long will the pandemic last, and when will there be a cure or vaccine? 2) Removal of travel restrictions and travel blocking measures When and how will countries begin to relax restrictions? How will social distancing rules affect tourism supply? 3) Consumer and business confidence: How long will it take consumers to make repeat trips? How will travel behavior change? 4) Economic impact: How deep will the global recession be, and how long will it last? How will consumer spending decisions be?5) Government measures: How are government measures supporting tourism?

VI. CONCLUSION

In conclusion, the study found that the business continuity plan for tourism operators in the face of the COVID 19 crisis in Thailand. Internal factors related to their organization should be considered, and also external factors, namely, within the organization itself, should have a measure of supervision and risk management. There must be a step-by-step business continuity plan in critical conditions. This can be summarized as follows. Step1) Set goals, scopes, and teams. Step2) Key Activities and Recovery Goals. Step3) Essentials for the restoration of core activities. Step 4) Risk Assessment - Understand the disaster and crisis. Step 5) Prevention and mitigation. Step 6) Urgent response in the event of a disaster. Step 7) Business Continuity Strategy for a Fast Recovery Step 8) Be financially prepared. Step 9) Practice to optimize the BCP, and Step 10) continuous review and development. While Business continuity planning for the epidemic COVID 19 outbreak focusing on the PPRR model: 1) Prevention, 2) Preparation, 3) Response, and 4) Recovery corresponding to the efficiency communication, maintenance of health and hygiene, digital and technology linkage, social distancing and compliance with the COVID-19 control measures following the policies of the respective governments. Moreover, there are four elements for the business continuity plan: 1) Risk Management Plan, 2) Business Impact Analysis, 3) Incident Response Plan, and 4) Recovery Plan.

VII. ACKNOWLEDGEMENT

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The Acceptance of Using Library Mobile Application of the Students at Faculty of Liberal Arts, Rajamangala University of TechnologyThanyaburi

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Abstract— This research was funded by Institute of Research and Development, Rajamangala University of Technology Thanyaburi. The purposes of this exploratory research were 1) to identify students' level of the acceptance toward the use of the library mobile application, 2) to examine factors influencing the students' level of the acceptance toward the use of the library mobile application,   3) to investigate the students' satisfaction toward the use of the library mobile application, and 4) to suggest some guidelines for future development of the library mobile application at Faculty of Liberal Arts, Rajamangala University of Technology Thanyaburi (RMUTT). The 400 students of Faculty of Liberal Arts, RMUTT, who used the library service, were selected by convenience sampling. The research instrument was a questionnaire (IOC = 0.977, α = 0.970). The data were analyzed by percentage, mean, standard deviation, t-test, f-test, Pearson's correlation coefficient, and multiple regression. The research results showed that the students' acceptance toward the use of the library mobile application was at high level ($\overline{X}$ =3.93): attitude ($\overline{X}$=4.01), perceived usefulness ($\overline{X}$ =3.93), perceived ease of use ($\overline{X}$=3.91), and intention to use ($\overline{X}$ =3.86). The overall satisfaction of the students toward using the library mobile application was at high level ($\overline{X}$ =3.86). According to hypothesis testing, the differences of frequency of use, objectives of use, getting advice, and learning how to use the library mobile application affecting the students' acceptance of using library mobile application at the level of .05 statistically significant difference. The multiple regression analysis could predict the acceptance of using the library mobile application that perceived ease of use, perceived usefulness, attitude, and satisfaction affected intention to use. In order to increase the performance of the library mobile application, the students suggested that the library mobile application manual in Thai language should be provided, online user support should be available via the application, and full text should be able to be downloaded.

Index Terms— ***Technology Acceptance Model (TAM), Library Mobile Application, Academic Library***

I. INTRODUCTION

Currently, information technology and communication are rapidly evolved and used to connect people from all over the world. The information can be easily and immediately accessed anywhere and anytime [1][2], and systematically retrieved via mobile devices, such as smartphones, netbooks, tablet, etc. Smartphones are the popular device because of modern design, light weight, easy portable, and compatibility with many application programs. In addition, low pricing causes more purchasing and more mobile usage [3]. According to mobile usage statistics during 2013 – 2017 in Thailand, computer usage declined from 35% to 30.8%, whereas internet usage increased from 28.9% to 52% as well as a number of mobile consumers increased from 73.3% to 88.2% and the internet was accessed via smartphones by 93.7%, via computers by 25.4%, via notebooks by 20.0%, via tablets by 10.2% [4]. According to these statistics, it indicates that mobile technology is popular and widely used. The technological advances of smartphones changes consumption behaviors. Ease and speed of service are needed for online services like online shopping, making a reservation, conducting online transactions, finding a location and navigation, reading online e-books, and using online library resources [5][3]; hence, many organizations try to develop mobile applications to facilitate their customers.

The Library of Faculty of Liberal Arts, Rajamangala University of Technology Thayaburi (RMUTT), Thailand realized the importance of integration of technology into

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library services, and the necessity of offering library services on a mobile application for academic engagement and achievement. Thus, the Library of Faculty of Liberal Arts, RMUTT procured a library application for book renewal, information retrieval, book reservation, book recommendations, and notification for loan expiring in order to derive the students' satisfaction. As the researcher and librarian, I roughly asked some students who used the library mobile application and it found that they were interested in and satisfied with the library mobile application because they could renew their books at home when they had no classes. They could retrieve and reserve the books they wanted. However, some students did not accept the library mobile application because they liked to find and borrow the books by themselves. Some said their phones were nearly running out of memory, so they did not want to download any applications. Some said they preferred using the library program on a computer to on a mobile phone, and they did not know how to use the library mobile application. According to [6], there are both skilled and unskilled users. The differences of mobile device skills are one of the obstacles to service development through mobile devices. The important problem is the new innovation acceptance of the library users, so the Library needs to let the users accept the information services on mobile phone in terms of usefulness, convenience, and ease and speed of use. If the users accept these reasons, the implementation of the library services on mobile phone will be successful.

In addition, factors in the information technology acceptance are great significant to explain the users' technology acceptance in daily life comprising perceived usefulness, perceived ease of use, attitude toward using, intention to use and actual use [7]. The study of [8], titled User Acceptance of Mobile Library Applications in Academic Libraries: An Application of the Technology Acceptance Model, brought the Technology Acceptance Model (TAM) to study the users' acceptance of library mobile applications and it found that perceived usefulness, interactivity, and ease of use affected users' attitude and intention to use mobile library applications, and users' satisfaction also affected intention to use. Another research of [9] studied about the awareness and used of smartphone applications to the available services of the University of Bahrain Library, and its results indicated that students positively accepted using the library application and information services and would intend to use if the system was effective and able to access various information and services on mobile phones.

II. RESEARCH OBJECTIVES

The objectives of this research were 1) to identify students' level of the acceptance toward the use of the library mobile application, 2) to examine factors influencing the students' level of the acceptance toward the use of library mobile application, 3) to investigate the students' satisfaction toward the use of library mobile application, and 4) to suggest some guidelines for future development of the library mobile application at Faculty of Liberal Arts, RMUTT, Thailand.

III. RESEARCH METHODS

A. Research Design

This quantitative research was conducted on 400 undergraduate students of Faculty of Liberal Arts, RMUTT, Thailand in the first semester of academic year 2019. The samples are sized by Taro Yamane's method and selected by convenience sampling. The research instrument used was the 5 Likert's scale questionnaire with Index Objective Congruence (IOC) of 0.977 and the reliability of Cronbach's alpha coefficient at 0.970. The data obtained were analyzed by using the descriptive statistics of percentage, average value, standard deviation, and hypotheses were tested by independent sample t-test, f-test with LSD, Pearson's product moment correlation coefficient, and multiple regression with enter method.

B. Research Process

Research process of this research has developed into 5 steps consisted of to intensive literature review, created research tools, conduct the experiment, assess experimental results, and to develop concluding remark Steps were shown in Fig. 1.
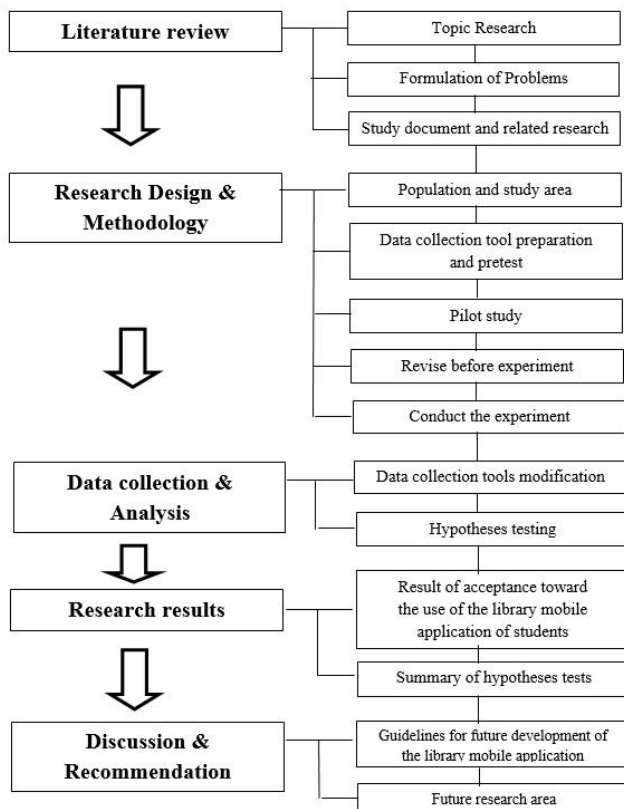
Fig.1 A flow diagram of the detailed research process

IV. RESULTS

The research results showed that the students' new technology acceptance of library services by using mobile application at Faculty of Liberal Arts, RMUTT was at a high level ($\overline{X}$ = 3.93). Considering each aspect of the Technology Acceptance Model (TAM), the students accepted using the library mobile application at a high level in all aspects. The average of each aspect could be arranged in descending order as follows: attitude ($\overline{X}$ = 4.01), perceived usefulness ($\overline{X}$ = 3.93), perceived ease of use ($\overline{X}$ = 3.91), intention to use ($\overline{X}$ = 3.86). Regarding the students' satisfaction toward the library mobile application, the level of the overall satisfaction was high ($\overline{X}$ = 3.86) when QR code service for downloading the library mobile application ($\overline{X}$ = 4.32) was the most satisfaction following by the usefulness of the library mobile application (the library mobile application was useful in daily life, such as, time saving, reducing travel expenses, etc.) ($\overline{X}$ = 4.10), and the library mobile application working as expected ($\overline{X}$ = 4.09).

The research hypotheses were tested of the significance of correlation efficient that could be summarized as follows:

H1: The students' differences of using library mobile application differently influenced the acceptance toward the use of the library mobile application at statistically significant difference of .05. The students' differences of using library mobile application could be categorized as frequency of use, objectives of use, getting advice, and resources to learn about the library mobile application usage as shown in Table 1.

Table 1 The students' differences of using library mobile application differently influenced the acceptance toward the use of the library mobile application

The use of the library mobile application	n	$\overline{X}$	S.D.	F	df	p
Frequency of use						
1 time / a week	59	3.94	0.44	4.353	263	0.000*
2-3 times / a week	142	4.06	0.39			
4-5 times / a week	48	4.03	0.38			
More than 5 times / a week	25	3.87	0.31			
Occasionally	126	3.75	0.93			
Objectives of use	n	$\overline{X}$	S.D.	F	df	p
For book search	208	4.07	0.43	6.107	263	0.000*
For book renewal	72	3.95	0.38			
For checking book return due dates	61	4.24	0.22			
For checking alert messages	59	3.08	0.95			
Getting advice	n	$\overline{X}$	S.D.	t	df	p
Never	295	4.13	0.36	9.298	118	0.000*
Ever	105	3.36	0.83			
Learning how to use the library mobile application	n	$\overline{X}$	S.D.	F	df	p
Librarian	190	4.12	0.38	2.019	263	0.000*
Teachers	44	3.62	0.81			
Friend	47	3.30	0.97			
Self-study	82	3.90	0.50			
Library Facebook	37	4.14	0.353			

H2: The students' acceptance toward the use of the library mobile application positively related to the students' satisfaction toward the use of the library mobile application at the level of .05 statistical significance. This confirmed the hypothesis that the students' acceptance toward the use of the library mobile application related to the students' satisfaction toward the use of the library mobile application. Considering each factor of TAM, the results would be summarized to confirm 7 hypotheses as follows:

H2.1: Perceived ease of use (PEOU) highly related to Perceived usefulness (PU) (r = 0.717).

H2.2: Perceived usefulness (PU) moderately related to Attitude of use (ATU) (r = 0.666).

H2.3: Perceived ease of use (PEOU) moderately related to Attitude of use (ATU) (r = 0.666).

H2.4: Perceived usefulness (PU) highly related to Intention to use (ITU) (r = 0.833).

H2.5: Perceived ease of use (PEOU) highly related to Intention to use (ITU) (r = 0.733).

H2.6: Attitude of use (ATU) highly related to Intention to use (ITU) (r = 0.799).

H2.7: Satisfaction (ATU) highly related to Intention to

use (ITU) (r = 0.799).

The correlation between the students' acceptance and satisfaction toward the use of the library mobile application was shown in Table 2.

Table 2 The correlation between the students' acceptance and satisfaction toward the use of the library mobile application

Constructs	PU	PEOU	ATU	ITU	SA
Perceived usefulness (PU)	1.000				
Perceived ease of use (PEOU)	0.717**	1.000			
Attitude of use (ATU)	0.666**	0.610**	1.000		
Intention to use (ITU)	0.833**	0.733**	0.799**	1.000	
Satisfaction (SA)	0.599**	0.694**	0.622**	0.724**	1.000

**p < .05.

Multiple regression with enter method was then applied to this research for hypothesis testing and the results were shown as follows:

> H2.1: Perceived ease of use (PEOU) influenced Perceived usefulness (PU) ($\beta = 0.717$, $p < .05$).

> H2.2: Perceived usefulness (PU) influenced Attitude of use (ATU) ($\beta = 0.471$, $p < .05$).

> H2.3: Perceived ease of use (PEOU) influenced Attitude of use (ATU) ($\beta = 0.272$, $p < .05$).

> H2.4: Perceived usefulness (PU) influenced Intention to use (ITU) ($\beta = 0.633$, $p < .05$).

> H2.5: Perceived ease of use (PEOU) influenced Intention to use (ITU) ($\beta = 0.278$, $p < .05$).

> H2.6: Attitude of use (ATU) influenced Intention to use (ITU) ($\beta = 0.799$, $p < .05$).

> H2.7: Satisfaction (ATU) influenced Intention to use (ITU) ($\beta = 0.724$, $p < .05$).

According to Table 3, the influence of each factors could be represented as Fig 2.

Table 3 Summary of hypotheses tests

Hypotheses	β	t	P	Results
H1: PEOU >>> PU	0.717	20.548	0.000*	Accepted
H2: PU >>> ATU	0.471	9.070	0.000*	Accepted
H3: PEOU >>> ATU	0.272	5.238	0.000*	Accepted
H4: PU >>> ITU	0.633	16.962	0.000*	Accepted
H5: PEOU >>> ITU	0.278	7.458	0.000*	Accepted
H6: ATU >>> ITU	0.799	26.541	0.000*	Accepted
H7: SA >>> ITU	0.724	20.947	0.000*	Accepted
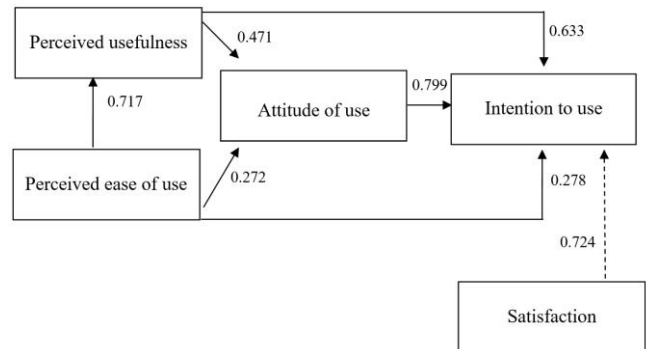
Fig.2 The influence of each factor

V. Discussions

1. The students' differences of using library mobile application differently influenced the acceptance toward the use of the library mobile application by the frequency of use, objectives of use, getting advice, and resources to learn about the library mobile application usage. The results from comparing the data showed that the students using the library mobile application 2-3 times a week for book search, book renewal, and checking book return due dates and learning how to use the library mobile application from the librarian and the Library Facebook had the acceptance higher than the students occasionally using the library mobile application for checking alert messages and learning how to use the library mobile application from teachers and on their own. The students who accepted the use of the library mobile application at the high level would realize the benefits of using the library mobile application meeting their needs, for example, renewing books from anywhere, easily using the library mobile application with no effort required and uncomplex system, and getting good advice from the librarian. This leaded to more frequent library mobile application usage, greater satisfaction, positive attitude, and then actual use. This is consistent with the study of [10]found that the graduate students accessing the e-Thesis database with web mobile technology retrieved the information on the Digital Collection database at the highest level due to ease of use, simplicity, getting satisfying results. Therefore, these resulted in positive behaviors and attitude toward using then leading to high frequency of accessing the database.

2. Factors influencing the library mobile application of the students at Faculty of Liberal Arts, Rajamangala University of Technology Thanyaburi could be discussed as follows:

> 2.1 H1: Perceived ease of use influenced perceived usefulness resulting from the menu interface that made the

library mobile application easy to retrieve books and access the library information. Students could learn how to use the library mobile application quickly, without effort required, and ubiquitously. In addition, the book renewal menu provided convenience to the students coming to the library in person resulting in time saving and reducing travel expenses. Therefore, this led to the students' acceptance of using the library mobile application. [11] noted that the ease of use with no complexity of technology affected perceived usefulness and it is correlated with the study of [12] that perceived ease of use of e-Learning had the direct effect on perceived usefulness and correlated with [13] that perceived ease of use affected perceived usefulness. The learners perceived the usefulness of learning language through the mobile application because the mobile application could get along with the learners' lifestyle and time management including having fun, providing entertainment, and attracting the learners' attention, then the learners could perceive the usefulness of learning through the mobile application.

2.2 H2: Perceived usefulness influenced attitude to use the library mobile application; this was because the library mobile application could support the library services, for example, book retrieval, self-check borrowing information, book renewal, book reservation, late book fine payment, checking library hours, etc. These useful services led to the students' positive attitude to use the library mobile application and realized that the library mobile application was useful in their daily life, and then brought to the technology acceptance. This is consistent with the study of [14] that perceived usefulness of technology was the individual attitudes leading to technology acceptance or rejection. Perceived usefulness of the technology user created the intention to use the services. According to the previous research, [8] noted that perceived usefulness of the library mobile application users influenced the attitude to use.

2.3 H3: Perceived ease of use influenced attitude to use the library mobile application. The students perceived ease of use when they learned how to use the library mobile application by first-hand experience that built the positive attitude later on. [15] and [16] in their studies described that if the users perceived ease of use, they would be open-minded and accept the technology. Thus, perceived ease of use is the factor influencing the positive attitude. These studies were consistent with that of [8] that the students' perceived ease of use influenced attitude to use and [12] found that perceived ease of use directly

influenced attitude to learn e-Learning that led to the acceptance of e-Learning.

2.4 H4: Perceived usefulness influenced intention to use the library mobile application. Using the mobile application for library services allowed the students to be able to quickly access the library services. A due date reminder notification service could prevent the overdue fine and could save time for traveling to the library in person. That is why the students accept and intend to use the library mobile application. The results of this research also showed that the students were open minded to learn a new system and insisted on continuing to use the application. [17] noted that the technology acceptance led to actual use when the users were confident that the technology they used were useful. It is consistent with the study of [18] that although the users have never used the application, they would continue to use the application. That is why the useful information would exist and keep developing. According to [9], their study found that the users accepted using the library mobile application at a high level and would intend to use it if the library and developer worked together to design the effective application. This is supported by the study of [19] that perceived usefulness influenced intention to use the library mobile application, and by the study of [20] that the factor influenced intention to use the library mobile application was perceived usefulness as well as the study of [8] and [21] showed that the students' perceiving usefulness of the library mobile application would influence intention to use.

2.5 H5: Perceived ease of use influenced intention to use the library mobile application. The students perceived the ease of use, then they could quickly learn and use the application. With not much of an effort, they consequently intend to use the application. [22] noted that the intention to use the technology could be measured by perceived ease of use. In addition, perceived ease of use influenced intention to use; this is consistent with the studies of [19], [23],[20],[8], and [21].

2.6 H6: Attitude influenced intention to use the library mobile application. Ease of use the application led to the actual use, then the students had positive attitudes. This is consistent with the Technology Acceptance Model (TAM) [24]: perceived usefulness and perceived ease of use are the factors relating to attitude and intention to use. Attitudes toward intention to use affect the behaviors toward using the technology that are brought to accept or reject the technology acceptance. Because the students perceived that the application was easy to use and saved

time for traveling to the library, the students were open-minded and intended to use the application. This is consistent with the study of [25] that perceived ease of use, perceived usefulness, and social factors influenced attitudes toward online social media; these attitudes influenced intention to use online social media. Furthermore, the study of [26] found that attitude influenced behaviors toward intention to use information service via mobile phone.

2.7 H7: Satisfaction influenced intention to use the library mobile application. The expected library services on a mobile phone, such as information retrieval and book renewal, got the students satisfied, and the benefits of the application let the students accept the use of the library mobile application in daily life [27]. According to the study of [28], the technology integrated with service system development could build up the user satisfaction. When the services met the user expectations, it would serve the customer satisfaction [29]. This is related to [20] that the main factor affecting intention to use was the service quality, so the services via a mobile application had to be developed by the user's needs, for example, ask a Librarian, OPAC resource retrieval, online bibliography, short message service, etc. [8] found that the users were satisfied with the library mobile application at high level and the application affected intention to use. Moreover, [23] found that the satisfaction influenced the intention to use the library mobile.

VI. RECOMMENDATIONS

A. Recommendations for Practices

1. According to the research results, the students accepted the library mobile application in terms of perceived usefulness at a high level because of time saving. For this reason, the library mobile application should be developed to improve efficiency by adding more features, such as full text download, user guide in Thai language, instant messaging in order to get the most out of the library mobile application, then the students can organize or plan their time.

2. The students accepted the library mobile application in terms of perceived ease of use at a high level because it was easy to search books and access electronic resources. So, there should be various information resource accessibility provided, such as OPAC, single search, or any kinds of searches connecting with various kinds of electronic resources in order to quickly access the resources the students are looking for.

3. The results found that the students accepted the library mobile application in terms of attitude to use at a high level: benefits for everyday life, and the app every

student at the Faculty of Liberal Arts should have. Therefore, library mobile application usage guides should be provided, and the library mobile application should be advertised for raising awareness and convincing the students to use the library mobile application.

4. The students accepted the library mobile application in terms of intention to use at a high level because they were open-minded to use the library mobile application and insisted to continue using the library mobile application. Because of this, the library mobile application services should be improved to be easy to use, simple, multifunctional, and responsive to the students' needs in order to make the library mobile application more active. This development will let the students perceive the usefulness of the library mobile application that influences the positive attitudes to use and finally leads to actual use.

B. Recommendations for Further Research

1. The further research of needs and problems for the library mobile application usability should be conducted as qualitative research in order to improve the library mobile application meeting the students' needs.

2. The further research may be conducted with factor analysis of the acceptance of the library mobile application. The results would be the powerful development approach of the effective mobile application, and the guidelines for developers and designers to make the library mobile application more useful and more satisfying.

3. The further research may be conducted with other samples, for example, administrators, mobile application developers, librarians, and representatives of mobile application development companies in order to study different perspectives. Problems and solutions from the research would be a guideline to improve the library mobile application to be more effective.

CONCLUSION

The modern mobile technology nowadays has been developed and rapidly changed, and it leads to versatile uses in everyday life. The library services can adapt this technology to facilitate the users to effectively access the library resources. However, the library mobile application needs to support the users' behaviors in order that the users intend to use it and perceive its usefulness until they accept the new technology and are satisfied with the library mobile application. According to the research results of this research showing that the students accepted the library mobile application, the library mobile application developers could use the results as a guideline for building the effective library mobile applications with newer mobile

technology in the future to support the needs of library users in order to increase the users' satisfaction.

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The Use of Board Games to Develop English Vocabulary of Ornamental and Flowering Plants Sold in the Community of Primary 5 (Grade 5) Students at Nikornradburana School, Thailand

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Abstract— This research was under the U-School Mentoring 2020 Project. The research purposes were 1) to develop English vocabulary of ornamental and flowering plants sold in the community by using board games, 2) to study the learning retention after using board games, and 3) to study the students' satisfaction toward learning by using board games. The samples in this research were 10 Primary 5 (Grade 5) students of Nikornradburana School, Pathum Thani, Thailand in academic year 1/2020. The research instruments were 10 lesson plans; pretest, posttest and learning retention tests; and a satisfaction questionnaire. The data were analyzed by frequency, mean, standard deviation, and Wilcoxon signed rank test.

The research results showed that the posttest achievement scores were higher than the pretest achievement scores at statistically significant level of .05. In addition, the learning retention scores were higher than the posttest scores at statistically significant level of .05. Moreover, it was found that the students' satisfaction was at a high level ($\overline{X}$= 2.83, S.D. = 0.12).

Index Terms— English Vocabulary, Board Games, Young Learners

I. INTRODUCTION

U-School Mentoring was the project initiated and funded by the Office of the Permanent Secretary for Higher Education, Science, Research and Innovation to advocate for both public and private universities including community colleges to foster the small and medium sized schools for the area based education quality development and community development in order to improve their equity and quality in education.

Rajamanagala University of Technology Thanyaburi (RMUTT) is located in Pathum Thani, north of Bangkok, and there are many small and medium sized schools in this area with a huge gap in educational opportunities, for example, the lack of teachers and proper teaching materials. Some teachers teach many subjects, so they have no expertise in the subject areas. The small schools can be allocated with the small fiscal budget to provide enough instructional media. RMUTT has participated in this project as a part of the community and are conscious of the needs to support the community by providing academic support for the small and medium sized schools with the expertise.

Nikornradburana School is one of many schools participating in this project in 2020 in order to develop English language skills for the students because the students lack confidence and opportunities to use the English language. As a mentor of this school, the researcher visited the school and talked to the English language teacher and the School Director to identify the problems and listened to the School Director's expectations of this project. After the small talk, the Director took the school English language teacher and the researcher to survey the community and to study the community context and living conditions. Where the school is located is a big market for selling plants, so this context was raised and integrated with teaching and learning English language in order to meet the community's need and let the students bring what they learn in class to the real world. The lessons were designed by the cooperation of

the mentor and the school English language teacher including the School Director, and applied with the 21st century skills, and sufficiency economy to increase the competitive competence. As [1] said, teaching English language should be realized by the context of the community. However, the lessons were still based on Basic Education Core Curriculum, so the Primary 5 (Grade 5) students were selected in this research because the selected vocabulary is appropriate to the students in terms of the context mentioned above. This year, the school would like to focus on increasing the vocabulary, so the English vocabulary of ornamental and flowering plants sold in the community was used as the content of this project.

The process of this project would be conducted by using the Professional Learning Community (PLC) that the mentor tried to improve the students' English language skills in the long run. [2] noted that learning vocabulary has to be meaningful in order to be stored in the long-term memory, and the research of [3] showed that repetition caused higher scores. These ideas brought active learning to enhance the students' learning, and among many of active learning features, activity-based learning with games could allow the students to do the task repeatedly. Board games are a kind of games that can be used in the classroom to help the students learn things in the playful atmosphere, provide hands-on and heads-on skills, and foster self-confidence as well as supporting different learning styles [4]. For these reasons, the development of English vocabulary of ornamental and flowering plants sold in the community by using board games would be likely to be in the right way.

II. RESEARCH OBJECTIVES

The research purposes were 1) to develop English vocabulary of ornamental and flowering plants sold in the community by using board games, 2) to study the learning retention after using board games, and 3) to study the students' satisfaction toward learning by using board games. The samples in this research were 10 Primary 5 (Grade 5) students of Nikornradburana School, Pathum Thani, Thailand

III. RESEARCH METHODS

A. Research Design

This research was a part of the U-School Mentoring 2020 Project for education quality development and community development, and English vocabulary was selected as a community development requirement. The research was a quasi-experimental research. There were 10 students (5 males and 5 females) of Primary 5 (Grade 5)

participating in this research. The research instruments were 10 lesson plans, board games; pretest, posttest and learning retention test; and a satisfaction questionnaire. 10 lesson plans covered the vocabulary about ornamental and flowering plants including gardening tools by integrating with speaking skills. The vocabulary was chosen from surveying the community by the School Director, the teacher, and the mentor in order to apply the English language skills to living conditions in the community. The vocabulary about ornamental and flowering plants including gardening tools as shown in Table 1.

Table 1 Vocabulary list

Vocabulary list		
Flowering plants	**Ornamental plants**	**Gardening tools**
orchid,	dumb cane	coco peat
sunflower	rubber plant	watering pot
jasmine	fiddle fig	trowel
marigold	Chinese evergreen	pot
tulip	golden pathos	hand fork
rose	aloe vera	fertilizer
moss rose	fern	soil
rose mallow	peace lily	gloves
yellow star	urn plant	scissors
lotus	spider plant	seed
petunia	snake plant	tap
rose periwinkle	lily turf	hose

The lesson plans were based on a communicative approach with active learning (activity-based learning with games). After teaching the vocabulary, speaking skill was integrated by using a short conversation at the garden center. Board games used in this research were matching cards (pictures with vocabulary), guessing the vocabulary from the cards, bingo, buying and selling game (inspired by monopoly game: there were the pictures of the ornamental and flowering plants, and gardening tools on the board; the students had to buy and sell them; and the student who had the most tokens would win.) Regarding the learning measurement, pretest, posttest and learning retention test were the same set that was separated into 2 parts: vocabulary test and pronunciation test. The vocabulary test aimed to measure how well the students were able to remember the target vocabulary by writing the missing letter(s) of the vocabulary, and to measure how well the students could understand the meaning of the target vocabulary in context by choosing the vocabulary (4 multiple choices). On the other hand, the pronunciation test aimed to measure how well the students were able to

pronounce the target vocabulary correctly. There were 9 words (3 words from the ornamental plants, 3 words from the flowering plants, and another 3 words from the gardening tools) for the pronunciation test. The rubrics for the pronunciation were 2 points for correct pronunciation with correct stress, 1 point for correct pronunciation with incorrect stress, and 0 point for incorrect pronunciation. Whereas the satisfaction questionnaire toward learning by using board games were designed by using 3 rating scales: high, moderate, and low satisfaction. The data were analyzed by using frequency, mean, standard deviation, and Wilcoxon signed rank test.

B. Research Process

This research process as illustrated in Fig 1 was divided into 5 steps: 1) identify the community development requirements by meeting the School Director and the English language teacher and surveying the local community in order to collect the information for planning the consistent lessons with the basic education core curriculum and the community development requirements in English language; 2) design the lesson plans by the English language teacher and mentoring by the university lecturer; 3) develop the teaching materials: board games, tests, the satisfaction questionnaire; 4) conduct the research: give the pretest, teach the target vocabulary, give the posttest, distribute the questionnaire, give the learning retention test (a month later); and 5) analyze the data. The research results will be enhanced as a guideline for the next year project.
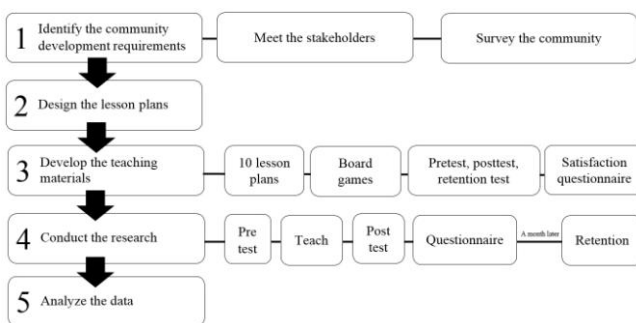
Fig.1 Research process

IV. RESULTS

The research results indicated that the posttest scores were higher than the pretest scores, and the learning retention scores were higher than the posttest score as shown in Table 2.

Table 2 The scores of pretest, posttest, and learning retention test

Tests	n	$\overline{X}$	S.D.	Median	IQR	Wilcoxon Signed Rank Test	Sig. (2-tailed)
Pretest	10	2.70	1.83	3.00	**2.50** (1.50, 4.00)	Posttest - Pretest -2.803	.005**
Posttest	10	13.15	5.08	13.50	**9.00** (9.50, 18.50)		
Retention	10	29.10	3.35	30.00	**5.75** (25.75, 31.50)	Retention - Posttest -2.805	.005**

Table 2 showed the differences of achievement scores between pretest and posttest. As can be seen in the table, the total pretest scores before the students (n=10) learned the vocabulary by using board games averaged 2.70 ± 1.83 points (out of 33 points) with a median of 3.00 points (IQR = 2.50). The total posttest scores averaged 13.15 ± 5.08 points with a median of 13.50 (IQR = 9.00). The scores of the pretest and posttest had a statistically significant difference (p-value < .05). Moreover, the total learning retention scores averaged 29.10 ± 3.35 points (out of 33 points) with a median of 30.00 points (IQR = 5.75). Comparing the total learning retention scores and posttest, it showed that the total learning retention scores were higher than the total posttest scores with a statistically significant difference (p-value < .05).

Considering each part of the test, the sub skills of understanding the meaning and writing the vocabulary were developed when learning by using board games. Table 3 below would compare the scores of pretest and posttest in order to investigate how well the students' sub skills could be developed: vocabulary test for measuring understanding the meaning in context and writing, and pronunciation test for measuring correctness and stress of the target vocabulary.

Table 3 The score comparisons of sub skills in pretest and posttest

Tests	n	$\bar{X}$	S.D.	Median	IQR	Wilcoxon Signed Rank Test	Sig. (2-tailed)
Pretest - Vocabulary	10	0.90	1.10	0.50	2.00 (0.00, 2.00)	-2.501	.012**
Posttest - vocabulary	10	3.40	1.43	3.50	2.25 (2.00, 4.25)		
Pretest - Pronunciation	10	1.80	1.48	2.00	2.50 (0.00, 2.50)	-2.814	.005**
Posttest - Pronunciation	10	10.10	4.28	9.00	7.00 (7.50, 14.50)		

Table 3 showed the pretest scores of the vocabulary test averaged 0.90 ± 1.10 points (out of 15 points) with a median of 0.50 points (IQR = 2.00), but the posttest scores of the vocabulary test averaged 3.40 ± 1.43 points with a median of 3.5 points (IQR = 2.25). It indicated that the students had the knowledge of the target vocabulary after learning by using board games in terms of meaning and writing higher than that before learning by using board games with a statistically significant difference (p-value < .05). Whereas the pretest scores of pronunciation averaged 1.80 ± 1.80 points (out of 18 points) with a median of 1.48 points (IQR = 2.50), and the posttest scores of pronunciation averaged 10.10 ± 4.28 points with a median of 9.00 points (IQR = 7.00). It showed that the students could perform the vocabulary pronunciation after learning by using board games better than before learning by using board games in terms of correctness and stress with a statistically significant difference (p-value < .05).

A month later after the posttest, the same tests (both vocabulary test and pronunciation test) were given to the students as the learning retention test and the scores of each test were shown in the Table 4 below.

Table 4 The score comparisons of sub skills in posttest and learning retention test

Tests	n	$\bar{X}$	S.D.	Median	IQR	Wilcoxon Signed Rank Test	Sig. (2-tailed)
Posttest - vocabulary	10	3.40	1.43	3.50	2.25 (2.00, 4.25)	-2.810	0.005**
Retention test - vocabulary	10	11.90	2.56	12.50	3.75 (9.75, 13.50)		
Posttest - Pronunciation	10	10.10	4.28	9.00	7.00 (7.50, 14.50)	-2.807	0.005**
Retention test - Pronunciation	10	17.20	1.03	17.50	1.25 (16.75, 18.00)		

Table 4 illustrated the scores of sub skill tests that allowed comparison between the posttest and the learning retention test. The learning retention test scores of vocabulary test averaged 11.90 ± 2.56 points (out of 15 points) with a median of 12.50 points (IQR = 3.75). Comparing the scores of the vocabulary test from the learning retention test and from the posttest, it could be seen that the scores of the vocabulary test from the learning retention test were higher than from the posttest with a statistically significant difference (p-value < .05). Furthermore, the pronunciation test scores from the learning retention test averaged 17.20 ± 1.03 points with a median of 17.50 points (IQR = 1.25). These results showed that when comparing the pronunciation test scores of the learning retention to the posttest, there was a statistically significant difference (p-value < .05).

Fig. 2 The students practiced using the target vocabulary by using board games.

Fig 2 illustrated the students played the board game to buy and sell the plants with the vocabulary they had learned.

In addition, after learning the target vocabulary the students were asked to answer the 3-rating scale satisfaction questionnaire. The results were summarized as shown in Table 5.

Table 5 The students' satisfaction toward learning vocabulary by using board games

Satisfaction	$\bar{X}$	S.D.	Levels of Satisfaction
1. Vocabulary	**2.33**	**0.25**	**High**
The easiness and difficulty of target vocabulary	2.00	0.00	**High**
Being consistent with your interests	2.67	0.49	**High**
2. Activity management	**2.94**	**0.11**	**High**
The steps of activities	2.75	0.45	**High**
Supporting your learning	3.00	0.00	**High**
Activity-based learning	3.00	0.00	**High**
Timing	3.00	0.00	**High**
3. Learning process	**2.96**	**0.10**	**High**
Enjoyment	3.00	0.00	**High**
Participation	3.00	0.00	**High**
Learning vocabulary from the activities	3.00	0.00	**High**
Applying vocabulary knowledge from playing board games	2.83	0.39	**High**
Total	**3.83**	**0.12**	**High**

Table 5 showed the students' satisfaction after learning by using board games. Overall satisfaction toward learning by using board games was at a high level ($\bar{X}$= 2.83, S.D.= 0.12). The questions could be grouped into 3 aspects: vocabulary, activity management, and learning process. The overall students' satisfaction toward board games was at a high level ($\bar{X}$= 2.33, S.D.= 0.25). The students thought that the vocabulary used in board games was related to their interests with a high level of satisfaction ($\bar{X}$= 2.69, S.D. =0.49), and the students were satisfied with the easiness and difficulty of the target vocabulary at a high level ($\bar{X}$= 2.00, S.D.= 0.00). The overall satisfaction of activity management was at a high level ($\bar{X}$= 2.94, S.D.= 0.11). The students thought that board games could promote their learning ($\bar{X}$= 3.00, S.D.= 0.00) and participation ($\bar{X}$= 3.00, S.D.= 0.00), and they also thought that the activities were managed on the appropriate time ($\bar{X}$= 3.00, S.D.= 0.00). Finally, the overall of the satisfaction toward benefits for the learners was at a high level ($\bar{X}$= 2.96, S.D. =0.10). The students felt that they enjoyed learning by using board games ($\bar{X}$= 3.00, S.D.=0.00) at a high level of satisfaction. The students also thought that board games could draw them to participate in the activities ($\bar{X}$= 3.00, S.D.=0.00) and they could learn the new vocabulary while they were playing ($\bar{X}$= 3.00, S.D.=0.00) with a high satisfaction level.

V. DISCUSSIONS

According to the research results, the students' posttest scores were higher than pretest scores with a statistically significant difference. This is because board games could motivate the students' learning as [5] said that learning the English vocabulary through games could break a lack of learners' motivation with a fun learning environment. And the research of [6] and [7] found that board games had positive effects on the experimental group, and the students could remember the new vocabulary and retain them better when they were in a relaxed and comfortable environment. Considering each part of the test, the results indicated that the students could well perform using the target vocabulary in terms of the use of vocabulary and the pronunciation. It was consistent with the previous research of [8] that the scores of speaking skills in the experiment group were higher and they could perform speaking with confidence.

The research continued to observe the student's learning the vocabulary by testing them a month after posttest as a learning retention test and the results revealed that the learning retention scores were higher than the posttest scores. This might be because the students used the classroom materials after class or in their free time related to [3] that the repetition caused higher scores.

The students also were asked about their satisfaction after learning the English vocabulary by using board games. The results were also consistent with [9] that learning vocabulary by using games led to more effectiveness for vocabulary retention because of relaxation, excitement, and [5] also mentioned that games could encourage the better retention of new vocabulary. This is supported by the research of [10] showing that besides the students play the games actively, board games could help students increase their memory retention of theme-based vocabulary.

The results indicated that their satisfaction was at a high level because the board games could promote their learning of the new vocabulary including participation with the games. These results were consistent with [11] that the board games could attract the participants and sharpen their vocabulary skills. In addition, the participants strongly agreed to learn new things when they were playing board games. [12] noted that from the interviews the students enjoyed learning with board games and they competed with their friends, so the students gave the positive comments to the games.

VI. RECOMMENDATIONS

A. Recommendations for Practices

1. The teachers may design board games to enhance English language skills: listening, speaking, reading, and

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writing, especially, low motivated students or failing students. There is no need to sit down, move their lips, and try hard to memorize a lot of vocabulary. Board games could help students remember the vocabulary --- only play along the games. However, from my observation during the students playing board games, the first game was always difficult. The teacher might take time to rehearse the students before letting them play by themselves.

2. Board games for language learning would be more beneficial if the teachers could integrate the skills together, not stand alone.

3. In order to save time for creating board games, I would suggest the teachers use one board game with different rules. The teachers could add some more rules to make the games more challenging, or cut some rules to make the games easier.

4. Graphic design is a huge problem for the teachers, so the teachers may find some free resources on websites that the teachers could edit on websites, hire a graphic designer, or let the students create their own games and then play with their friends.

5. Board games can be used as filler tasks in the classroom and also out of the classroom to review the language that the students have learned in class. Furthermore, the teacher might integrate the content with other school subjects.

B. Recommendations for Further Research

1. The compositions of the board games for education might be researched in order to study the effects of them on the students.

2. The board games can be researched with the new samples, such as other levels, comparing the results to the different sized schools, and different learning styles.

3. Board games set up the context to let the students communicate during games, so the further researches might be related to measure the language competency in real situations in order to study the relationship between them or the factors influencing them.

CONCLUSION

In conclusion, the research results clearly showed that board games could facilitate the students' learning in terms of both the learning progress and learning retention as well as the students' satisfaction. The research results also showed that the repetition of playing games could develop the English vocabulary. The students can learn from their mistakes and friends, so some students have to take time to get higher scores and give up playing games. The teachers

have the important role to monitor the students, encourage them to keep playing, or change the rules if the teachers find it difficult for the students. At this point, the teachers should be flexible and adaptive. Beyond the high scores, during the games the students concentrate with the game and interact with other players all the time. This helps the students create the interpersonal skills, problem solving as well as decision-making skills that are different from mobile games. So board games are a great idea to create their own opportunity to use the language. However, some introverted students might be too shy to produce the language. The teachers sometimes need to provide some reinforcement and let the games restart. In summary, this U-School Mentoring in 2020 had great success as seen in the results above. The results can be used as a guideline for next year's project and extended to the students in other levels.

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Computational Cost Reduction of Transaction Signing in Blockchain

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Abstract— Nowadays, Blockchain is a disruptive technology, particularly in the financial context. Moreover, Blockchain is behind the success of cryptocurrencies, e.g., Bitcoin and Ethereum. Unlike traditional currencies, cryptocurrencies are entirely virtual. There is no physical money, but it can directly make payments in digital currency from one person to another without intermediaries. Moreover, Hashing's cryptographic algorithm makes Blockchain resist tampering from any transacting participants because the submitted block cannot be altered or re-engineered. However, another big problem is how users of cryptocurrencies stop somebody from adding or editing a transaction that spends someone else's money to them. To do this, Blockchain needs another cryptosystem called Public/Private Keys, a primitive asymmetric cryptosystem, e.g., the RSA encryption, to sign the transactions for proving the authenticity of the ownership without revealing the signed secret information. The generated public key is regarded as a ledger account number or digital wallet of the sender and the recipient. Simultaneously, the paired private keys are used to identify whether the digital wallets' owners are authentic. As growing network entities and propagated Blockchain transactions, computing millions of replicated tokens in the blocks to sign and verify the digital wallet's ownership is computationally expensive. However, a certain of chosen arithmetical transformations that can simplify mathematical cost can significantly reduce computational complexity. This research's main contribution is developing a protocol that can reduce the complexity and mathematical cost in generating the digital wallet and verifying its authenticity of ownership. Finally, performance analyses of the RSA algorithm for the protocol have been measured and visualized using Python.

Index Terms— *Complexity, Blockchain, Bitcoin, Cryptocurrency, Digital currency, Public/Private Keys, Asymmetric Cryptosystem, the Rivest-Shamir-Adleman Encryption (RSA).*

I. INTRODUCTION

Nowadays, Blockchain is a disruptive technology. It is a shared database storage technology or known as Distributed Ledger Technology (DLT). Replicated data logging guarantees that the previously recorded data is safe, seeing the same data from all network users and cannot be converted or edited. Such a mechanism provides the reliability of shared data using cryptography principles and the ability of distributed computing.

The start of Blockchain technology firstly took place in 2008 with Satoshi Nakamoto's presentation [1]. It is a conceptual expression of creating a secure platform that can create security in exchanging digital currency named Bitcoin. It is unnecessary for intermediaries, such as banks

or other entities involved in the payment process. It receives widespread attention and acceptance from experts worldwide that it is technologically advanced and capable of using financial and banking aspects and other major sectors, including the government, science, and education sectors.

The Blockchain technology links all information together throughout the system. When a new transaction occurs, it must be announced to every machine in the system to recognize it. The transaction must also receive a consensus from the entire network before the transaction can be recorded to the Block. Therefore, Blockchain technology does not require an intermediary to do the job of organizing it. All the information is stored under the Blockchain structure and distributed to the local affiliate

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members. If someone tries to create a fake transaction, the data will conflict with the other members' device's data since the device connects to all other data, leading to tolerance to create such a transaction to the system. There will only be transactions that everyone in the affiliate accepts that can be recorded. The registered transactions that have been logged into the Blockchain system cannot be changed or modified. It is the main reason that makes Blockchain technology widely accepted as technology storage with high reliability.

The components of Blockchain consist of four essential elements: 1) Block 2) Chain 3) Consensus and 4) Validation. Blockchain data entry is calculated in Block type layout, and each Block links to the previous Block with Block's Hash value. They are always cascaded together into chains, making it difficult to counterfeit. They can check the data blocks' integrity throughout the Chain, which can be traced back through the starting Block called Genesis Block.

Block is a data packet divided into two parts. The first one is a Block Header part of letting us know what is inside the data box. The second one is a Block Data part to contain various information, such as information on the amount of money, transfer information, medical history information, and other miscellaneous information.

Chain is the principle of memorizing every transaction of everyone in the system, recording the data, copying the ledger, and distributing the ledger account to its people. The system will distribute a copy of the ledger account to everyone in the network to be aware of the conflict transactions. Since the launch of the Blockchain system, even if one node is corrupted, it can confirm or re-enter the other node's valid ledger, contributing to the system's availability.

Consensus is an establishment of an agreement and mutual commitment between members of the Blockchain affiliate. All of the members must agree to the rules and a mechanism to control the data's accuracy in all nodes through different algorithms to ensure the same precision and integrity, including information. There are several Consensus processes, such as Proof-of-Work, Proof-of-Stake, Practical Byzantine Fault Tolerance (PBFT), and Proof-of-Authority.

Validation is an entire-system proof of validity and accuracy of data to ensure that no information is missing. The part of the Consensus is Proof-of-Work. Proof-of-Work is creating a Consensus using solving complex mathematic problems that takes a long time from nodes belonging to the network, known as Miners. The goal of Proof-of-Work is to verify the reliability of the information being logged into the network. Miner will be rewarded for doing Proof-of-Work. Consequently, the Block will gradually be chained and is always available without any system administrator. Bitcoin is an excellent example of making a Consensus using a Proof-of-Work, which is a public Blockchain.

Although Blockchain technology is novel and cutting-edge, it is from nothing more than ancient knowledge called cryptography. There are two main cryptosystems used in Blockchain. The first one is Hashing, and the second one is Public/Private Keys.

One of the most spread-used algorithms in Blockchain is Hashing. It is for creating a digital fingerprint of the data—the Hash changes if and only if the data changes. Hashing is also used for Mining. According to the specified conditions, the miner who can first find the suitable Hash with the corresponding "number only used once" (Nonce) will be rewarded. The designation that every node has to find the Nonce by solving a mathematical problem, known as Proof-of-Work, where the accepted Block must answer the Block's aforementioned mathematical problems. Therefore, a malicious attacker cannot create a fake transaction without modifying Nonce's mathematical answer, including Block and all other Chain's blocks. Moreover, they must be done simultaneously in every Block to be accepted by other nodes, called the Consensus. That is difficult and almost impossible with the ability of today's computers. Consequently, Blockchain is regarded as a form of recording highly secure data.

Another cryptographic primitive used in Blockchain is Public/Private Keys. It can be used not only for creating a digital wallet but signing transactions as well. A keypair generator creates digital keys. The public key is the address of the wallet, which is approximately 512 character-long hexadecimal characters. These numbers are used as a bank account number of the sender and the recipient. Simultaneously, the paired Private key is used to sign and verify the ownership of the wallet. The private key must be first generated using random numbers, but it needs to be kept secret as the name implies. Only the authentic wallet's owner knows the private key. After that, the public key is generated by using the chosen private key encrypted with asymmetric algorithm like RSA. Anyone in the network can know the public key because it is regarded as the wallet number. Finally, the cryptosystem can prove knowledge of a fake transaction without revealing the private key. In other words, the cryptographic mechanism can detect whether the transaction was tempered without using the private key. Consequently, the malicious attacker cannot change the signed transaction information because even if

they know the sender's and the recipient's public key, they do not know the private key to re-sign it. The digital signature will change immediately when the malicious node changes the information in the transaction.

The wallet's ownership is established through digital keys, the wallet's address, and digital signature. The digital keys are not stored in the network but are instead created and stored by users in a simple file called a wallet. Most transactions require a valid digital signature in the Blockchain, which can only be generated with the owner's private key. Keys come in pairs consisting of a private (secret) key and a private key. The public key is similar to a ledger number, and the private key is similar to the secret PIN or signature on a cheque.

In practice, the popular cryptocurrency like Bitcoin is structured as a peer-to-peer network topology. The practical Bitcoin network consists of between 5,000 to 8,000 listening nodes running various Bitcoin reference clients [2]. All nodes include the routing function to participate in the network and might include other supporting functionality, e.g., the Blockchain database, mining, and wallet services. All nodes provide to validate and propagate transactions and blocks—accordingly, the more extensive network and longer propagated blocks, the more transactions to be validated.

A transaction consists of four pieces of information to be signed: an amount of payment, sender's account, recipient's account, and sender's private key. Then, when the information is signed, the signed transaction (message signature) is sent to the recipient with three public information pieces. Meanwhile, the private key is kept secret with the sender. The web-based transaction signature simulation is shown in Fig. 1.
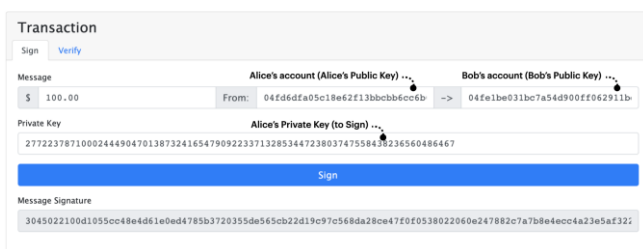
Fig.1 Alice's transaction to Bob's account

Fig. 2 illustrates when the recipient obtains the signed transaction. The recipient can verify whether the received transaction was altered using four pieces of information: the amount of payment, sender's account, recipient's account, and the signed transaction.
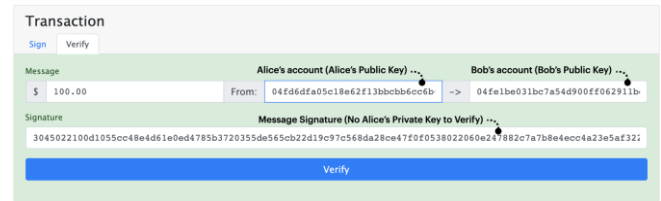
Fig.2 Alice's transaction verification

If any of the information was modified, the system could immediately perceive and inform all nodes in the network that the transaction is fake. Then, the fake transactions are dropped.

For example, if a malicious node changes the amount of payment, even a cent, the screen will turn red which means the verification failed, as shown in Fig. 3.
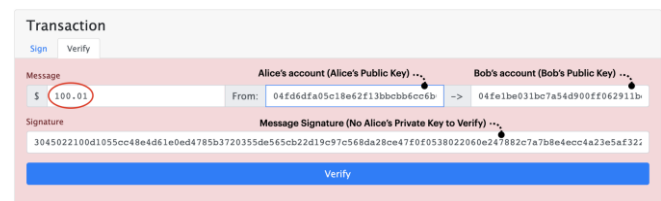
Fig.3 Amount of payment changed, Alice's transaction verification failed

Transactions are the most important part of the cryptocurrency system. Everything else in cryptocurrency is designed to ensure that transactions can be created, propagated on the network, validated, and finally added to the global ledger of transactions (the Blockchain).

Therefore, researchers have realized the importance of bandwidth overhead spent on signing and verifying transactions in Blockchain. Researchers believe that certain arithmetic transformations can reduce the computational cost of signing and verifying transactions. In the next section, researchers will define our contributed research objectives of our academic paper.

II. RESEARCH OBJECTIVES

The objectives of this research article are 1) to develop a protocol that can reduce the complexity and mathematical cost in signing and verifying Blockchain transactions, and 2) to analyze performance of our protocol measured and visualized using Python.

III. RESEARCH METHODS

A. Research Process

The researchers developed a web-based transaction signature simulation using Python Flask to demonstrate signing and verifying Blockchain transactions. The processes of implementation consist of

1. Measuring runtime spent on specific numbers of transactions signing and verifying based on the 2048-bit public RSA key-size represented by 512 hexadecimal characters and the private RSA key-size varied between 5 and 512 hexadecimal characters, which is the typical range of key size for Bitcoin.
2. Simplifying the complexity of computational cost using certain arithmetical transformations and measuring them again.
3. Visualizing the summarizing of the findings by Python.
4. Analyzing our protocol's performance compared to the original schemes.

B. Rules of Our Protocol

In the first step of the research process, the researchers defined the security model for creating keypairs and signing transactions, which sk_A is Alice's private key, pk_A is Alice's public key, sk_B is Bob's private key, pk_B is Bob's public key, m is the amount of payment Alice sending to Bob, and tx_A is the transaction signed by Alice as shown in Fig. 4.
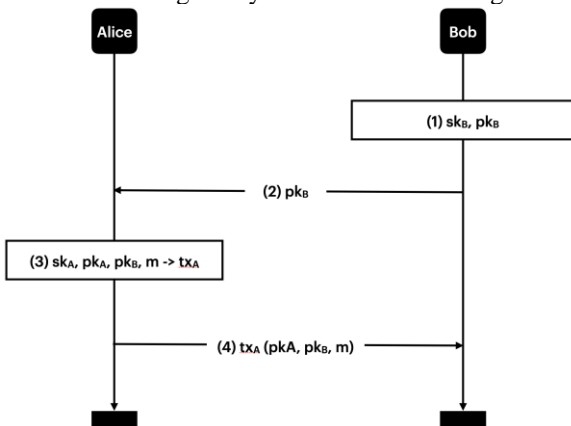
Fig.4 Research process for keypair generations and signing transaction

The other security scheme is shown in Fig. 5, which is verifying transactions.
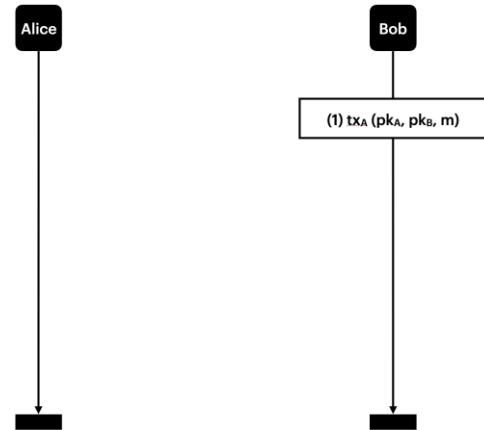
Fig.5 Research process for verifying transaction

In the second step of our research process, the RSA algorithm's modular exponents were simplified by certain arithmetical transformations. Although the formulas in each signing and verifying scheme are different, they concern with the Legendre symbol. Our protocol is implemented on the Legendre symbol and existing arithmetical transformations. We notice that the computational time of the Jacobi symbol increases exponentially when the key size increases. Therefore, our primary goal is reducing the "numerator" modulo the "denominator". The following are the rules of our algorithm. Note that the steps of each scheme are the same, but the private and public keys (the "numerator" and the "denominator")

1. Reformulating *the Legendre symbol* to *Euler's criterion*

$$\left(\frac{a}{p}\right) = a^{\left(\frac{p-1}{2}\right)} \pmod{p}$$

2. Reducing the "numerator" modulo the "denominator" using the *Extended Euclidean Algorithm*
3. Extracting any factors of 2 from the "numerator" using *the second supplement to the law of quadratic reciprocity*

$$\left(\frac{2}{p}\right) = (-1)^{\frac{p^2-1}{8}} = \begin{cases} 1, & \text{if } p \equiv 1 \text{ or } 7 \pmod{8} \\ -1, & \text{if } p \equiv 3 \text{ or } 5 \pmod{8}. \end{cases}$$

4. If the "numerator" is 1, it gives a result of 1. If the "numerator" and "denominator" are not coprime, it gives a result of 0

5. Otherwise, the "numerator" and "denominator" are now odd positive coprime integers so that we can calculate the time taken

The above algorithm leads to an efficient $O((\log a)(\log b))$ [3] algorithm for calculating *the Jacobi symbol*, analogous to the *Euclidean algorithm* for finding *the greatest common divisor* of two number.

C. Experiment Machine and Tools

The experiments have been done on Dell Optiplex 9010 Quad Core i7-3570 3.40-3.80 GHz CPU, 16GB of RAM. The machine runs Python 3.8 on 64-bit Windows 10 Professional.

IV. RESULTS

This section explained the details of the implemented experiments compared with existing algorithms. The parameters considered to evaluate the protocol's performance are keys generation time, signing time, and verifying time. Each run was done ten thousand times, and the average and standard deviations are shown on the graphs.

Fig. 6 is the graph of time in seconds taken for using the RSA cryptosystem against the keys' size in numbers of digits. The value and x are fixed as five digits, and N varies from 128 to 512 digits.

- The green line showed the time taken without any arithmetic algorithm.
- The blue line showed the time taken using Jacobi symbol properties.
- The red line, almost on the X-axis, showed the time taken using our protocol.
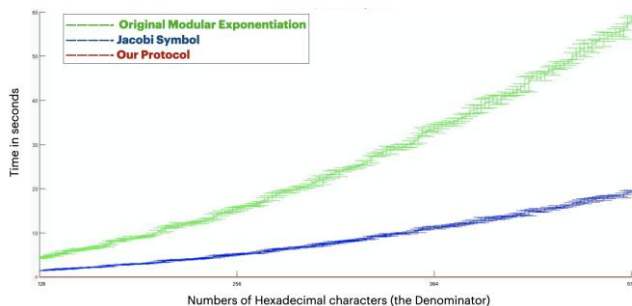
Fig.6 Time in seconds taken for signing and verifying 10,000 transactions with 5 Hexadecimal-digit private key and 128 to 512 Hexadecimal-digit public key compared with three schemes

To close up the graph plotted in Fig. 6. The runtime by our protocol varies from approximately 50 - 90 milliseconds, which is very small as shown in Fig. 7.
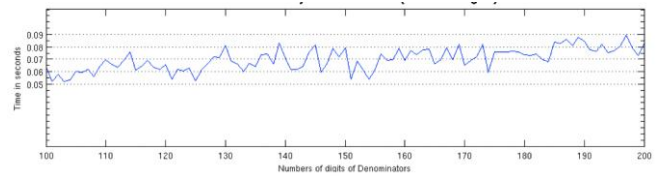
Fig.7 Time in seconds taken for signing and verifying 10,000 transactions with 5-digit private key and 100 to 200 digit public key of our protocol (closed-up)

In maximum, the numerator should be up to 512 digits. Therefore, we changed the number of digits of the numerator to 512 digits. The graph of the time taken of each algorithm is plotted in Fig. 8. The graphs of ordinary modular exponentiation significantly increased while the graph of both the Jacobi symbol algorithm and our protocol slightly increased in the time taken. However, our protocol's graph trended to be lower than the Jacobi symbol's when the numbers of digits of N increased.
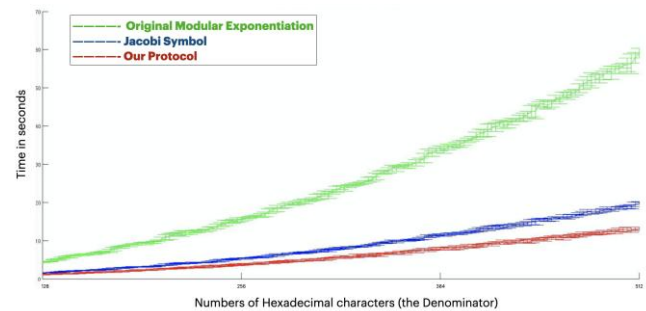
Fig.8 Time in seconds taken for signing and verifying 10,000 transactions with 512 Hexadecimal-digit private key and 128 to 512 Hexadecimal-digit public key compared with three schemes

V. DISCUSSIONS

This section discussed our demonstrated protocol's performance analysis. The experimental results of the transaction signature procedures indicated that our protocol consumed the least amount of time compared to both the original modular exponential and the Jacobi symbol transformation, not only the small but also the large numbers of private keys. Moreover, it tended to be more significantly different from our scheme's slope and others' when the public key's numbers of digits increased. More importantly, our algorithm consumed at least 6 times less than the original one's at the 512-digit key-size of the public key, or approximately 83.33% reduced. Additionally,

it tended to be many more times when the public key's size was growing.

As a result, our protocol can significantly reduce the computational cost for Blockchain's transaction signing and verifying.

VI. RECOMMENDATIONS

The researchers have recommendations for Further Research as followings:

1. The experiment tested in this study were taken at a maximum 512-digit RSA key. The next research should be done longer key size to see how much our protocol has better performance than other schemes.

2. The experiment should be done with asymmetric-key encryption with another RSA-like algorithm, e.g., Goldwasser-Micali cryptosystem.

3. The computational cost should be reduced by another arithmetical transformation, e.g., Chinese Remainder's Theorem or Fermat's Little Theorem as well.

CONCLUSION

In conclusion, transaction signing and verification are regarded as the most critical part of Blockchain. The signed transaction guarantees the protection of a data modification to be safe and secure. The transactions tend to be more important as the propagation of blocks in the Blockchain contributed to the much more signing and verifying time consumption. The findings from the analyses of both small and larger key size of the private key showed that the runtime consumed by our algorithm is very compact. It is supposed to decrease much time to sign and verify transactions in practical Blockchain. Our contribution is computational cost reduction of transaction signing in Blockchain.

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CRM Development on Mobile Application for SMEs in the Three Southern Border Provinces

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Abstract - The purposes of this research are to analyze, design, develop, and evaluate the efficiency and effectiveness of the CRM system. This study is a developmental research. The sample group used in the research was 390 SMEs entrepreneurs. The tools are efficiency assessment and effectiveness assessment. The results of analysing, designing, and development found that the work process of the CRM system consists of 5 processes: Login System, Customer System, Trading Information, Deal Information, and Reports. Also, there were representatives of information related to the system, including employees and managers who are working in the subsystem within the large system. The main stakeholders were managers and employees while the secondary stakeholders were customers. The efficiency and effectiveness of the system were at a high level with a mean of 4.63 and 4.41, respectively.

Index Terms - Customer Relationship Management System, Mobile Application, Small and Medium Enterprises

I. INTRODUCTION

Small and medium enterprises constitute the foundations of the national economy. They also meet the needs of consumers and perceive consumers' behavior in a niche market. However, they are inadequate to carry out proactive marketing activities and cannot face with business competition. Due to the complexity of consumers' behavior, this leads to the lack of behavioral data which can lead to strategic planning for a competitive advantage. However, nowadays, the internet technology has made advancement in SMEs to allow broad channels in contacting and contacting customers directly without any restrictions on location and time. Therefore, it allows customers to directly exploit the resources they demand. The marketing processes adopt the capabilities of internet technology that focus on customer relationship management in order to analyze the strategy, increase number of customers, maintain customers, build customer loyalty, and make potential profits [1]. Customer relationship management system, which is being called CRM system, represent a system that supports and strengthens customer relationship. It is able to display sales data, contact information, customer data collection, and an analysis of customer behavior for establishing plans or formulating

strategies and creating values. It can also specify the status of the customers as well as maintaining customers and building customers to be loyal to the brand. In addition, the CRM system can support businesses succeed. As mentioned by [2], they proposed that businesses that can deploy CRM as part of a marketing strategy will grow faster than any other business. Moreover, CRM is recognized as a key strategy for small and large businesses especially businesses in SMEs who need to adopt CRM for excellent strategies as well as to increase competitiveness with other vendors. CRM is also in line with the belief that developing a lasting relationship with customers is the cornerstone for gaining customers' loyalty and for more profitable products and services [3].It also enhances customers' services to be more efficient [4], which are 15,774 SMEs in the three southern border provinces [5] that are currently doing business.

At the same time, some businesses lose and disappear from the system as they continue to use traditional marketing systems. Therefore, the implementation of CRM system in SMEs is more suitable for the context of the three southern border provinces, rather than purchasing an information system to manage customer relationships and the management process required by SMEs in the area, as well as losing a lot of budget. It overcomes

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unskilled problems and enhances the potential of personnel in utilizing the system.

Therefore, the researchers recognize and attache great importance to the development of the fundamental economy that will affect the economic development in the three southern border provinces and the development of the nation as a whole through the capabilities of the electronic CRM system on the mobile application in order to promote small and medium enterprises to possess competitive potential. The relationship with customers can be engaged in anywhere and anytime which is appropriate to the context of the business. Analyzing and designing systems, developing, evaluating efficiency and evaluating the effectiveness of the system are also established.

CRM system represents a technology-based comprehensive approach to business processes which integrates customer information, sales, marketing and services. It also develops competitiveness by using internal resources such as technology, people, and customer relationship management processes to improve business efficiency. [6]; [7]; [8] and [9] suggested that the earlier idea had to be more than just a tool, but a deeply ingrained management strategy which will help overcome business competitors. In addition, [10] identified the CRM system as a business strategy, process, culture and technology which can add values through understanding and responding to the needs of customers individually. The successful CRM application requires the balanced integration of technology, processes and people.

In terms of an evaluation of information system product performance, academicians have evaluated regarding to objectives and synthesized the scores of experts' opinions of individually by collecting data with the accuracy of information, information integrity, corrective operation of the system, quality of information, benefits received from information and ease of use [11]; [12].

Moreover, it was evaluated based on user satisfaction, which demonstrated the relationship between users and the information system as well as their interactions and increased quality of work [13]. Besides, the information systems performance assessment is the evaluation of a process to disclose system requirements, investigate designing and programming errors for determining their integrity, software security and software quality. The

suitability of the product with the requirements consists of three techniques [14] which are for evaluating primary functions and checking for errors, including on-demand system, performance testing, ease of use test, and security tests by considering the input and display parts only. Furthermore [15] [16] proposed methods for assessing the effectiveness of CRM systems by observing users' experiences and the impact of use. It provides entrepreneurs information on their consumption experiences and assists them manage the effective customer relationships, including satisfaction assessments, customer retention assessment, such as measuring customer retention, repeating purchasing measurements [17], and assess customer loyalty. It is an assessment of the deep commitment that customers have with the business, a particular brand of products and services. It is a behavioral stability that is emphasized by true internal loyalty or a feeling of appreciation [18]. Moreover, the benefit that organizations will gain from customer loyalty is the increased profitability of their customers and creating values for customers [19].

II. RESEARCH OBJECTIVES

The purposes of this study are to 1) analyse and design the system; 2) develop the system; 3) evaluate the system efficiency; and 4) assess the system effectiveness.

III. RESEARCH METHODS

A. Research Design

This research is conducted and developed by collecting qualitative data from entrepreneurs and analysing the information and designing the system. After the system is developed, the quantitative data were collected by evaluating the efficiency of the system from experts in information technology and experts in customer relationship management. The system was assessed the effectiveness from 390 participants and analyzed the data using descriptive statistics.

B. Research Process

Research process of this research has developed into 6 steps were shown in Fig. 1.

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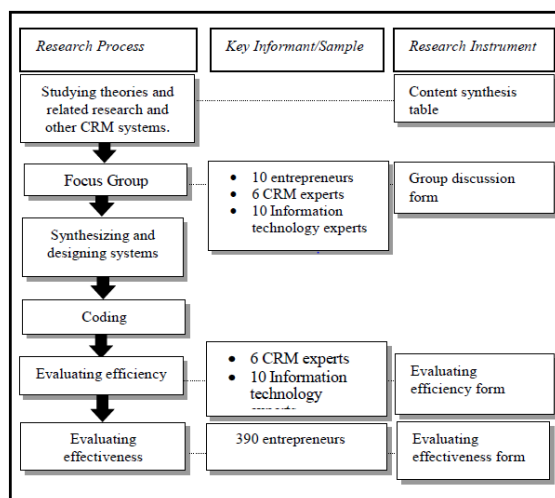
Fig. 1. PROCESS CRM Development on Mobile Application for SMEs in the Three Southern Border Provinces

IV. RESULTS

Context diagram of the mobile application CRM system for SMEs in the three southern border provinces revealed the process symbol represented the work in every step of the system by the external agents related to the system, namely employees and managers, whose input and output data between the agent and the system can be described as follows.

Table 1-1 External Agen

Manager	Employees
▪ Manager adds/deletes/ edits customer information	▪ Employee adds/deletes/ edits customer information
▪ The system reports customer information to the manager	▪ The system reports customer information to the employee.
▪ The manager submits adding/ deleting/ editing to the system	▪ Employee requested for displaying deal information
▪ The sysyem displays the details of deal	▪ The sysyem displays the details of deal
▪ The system reports deal situation and sales	▪ The system reports deal situation and sales
▪ The employee adds/deletes/ edits purchasing information	▪ The employee adds/deletes/ edits purchasing information
▪ The system reports purchasing information	▪ The system reports purchasing information
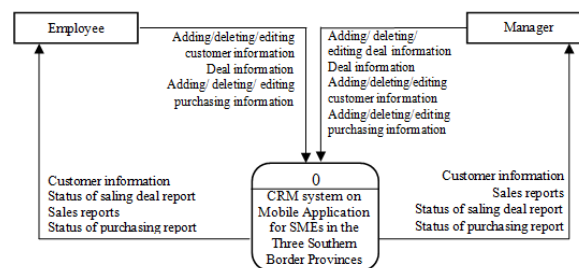
Fig.2 Context Diagram

The results of this research will be presented as follows;
A: Results of the analysis and design of the system
B: Results of the development of the system
C: Results of the evaluation of the system efficiency
D: Results of the assessment of the system effectivness

A. Results of the analysis and design of the system are presented through context diagram in Figure 2.

B. Results of the development of the system
The system that the researchers have developed includes the main menu: Customer Information, Deals, Orders, Payments, and Deal

Efficiency. In the work of the entrepreneurs, they can offer deals to repeat customers listed in the database and seek for new ones. To offer the customer a deal, the entrepreneurs can set the deal amount, price, and deal type through the deal code by forwarding information through the customer specified channel. When the customer accepts the deal, the system will promptly notify the entrepreneurs and will change the status from the prospective customer to be a customer interested in a product or service.

When a customer decides to accept the deal and make a payment, the system will transform the status of interested customers to repeat customers. While changing the status to a repeat customer, they can connect their connections to the system. When the information in the system changes, the information on the main page will be displayed to the entrepreneurs and the system will present the efficiency of the deal to the entrepreneurs to present the value of each deal. Simultaneously, the system can offer 7 days, 1 month, 3 months and 1 year historical data as well as offer history of deal, various deals and special offers. It enables entrepreneurs to use information to formulate

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marketing strategies which present an example of the system as in figure 3. It can be observed that it is a compact system that provides functionality as needed based on the nature of the customer relationship.
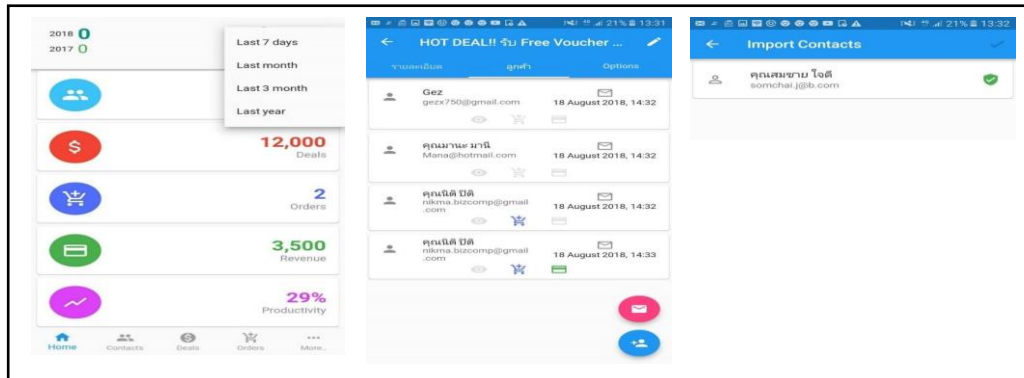
Fig.3 Example of CRM system on mobile application

B. Results of the evaluation of the system efficiency and results of the assessment of the system effectiveness will be presented in table 1.2

Table 1.2 The system efficiency and effectiveness

Evaluation Lists	Evaluation		Meaning
	Mean $(\bar{x})$	Standard Deviation (S.D)	
Efficiency	**4.63**	**.490**	**High**
1. The accuracy of function requirements	4.31	.514	High
2. The results obtained from the system	4.05	.480	High
3. The ease of use	4.56	.498	High
4. The security	4.24	.460	High
5. The ability to	4.68*	.606	Highest

* Refers to the highest mean of the system efficiency and effectiveness

Evaluation Lists	Evaluation		Meaning
	Mean $(\bar{x})$	Standard Deviation (S.D)	
work			
Effectiveness	**4.41**	.579	High
1. The satisfaction of the system	4.42*	.545	High
2. The customer retention	4.39	.693	High
3. The customer loyalty	4.42*		High

From Table 1.2, when experts assessed the efficiency of the system, it was found that the overall CRM system had a high level = 4.36, SD = .490). In the ability to work aspect, efficiency was the highest level (= 4.68, SD = .460) because the system was able to process results and responds instantly to the users. After that, the system was applied for SMEs entrepreneurs in the three southern border provinces for a while. The entrepreneurs, then, evaluated the effectiveness. The results found the overall effectiveness of the CRM system was at a high level. (= 4.41, SD = .606). The entrepreneurs' satisfaction of the system aspect was at a high level. (= 4.42, SD = .579). The customer loyalty of the system was at a high level (= 4.42, SD = .693).

V. Discussion and Conclusion

The CRM system has been developed from analysing and designing, developing, and evaluating the efficiency. It is then introduced to entrepreneurs for their use. The system is also evaluated its effectiveness. The efficiency evaluation is at a high level because the system can respond to users and connect to external sources very quickly. It has been employed in the event of a vast number of users; however, the system remains stable. [20] claimed that the automated

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CRM system will help improve the functionality of the establishing process and updating customer information from 17 minutes to 2.3 minutes, which confirms the CRM system is good for employing. Plus, it has a faster response and processing. Moreover, it is detected that the CRM system was also extremely effective. This shows that the CRM system can manage customer relationships in a customer-centric manner. As [21] noted that customers remain critical and valuable assets to the organization. Besides, the CRM system also focuses on managing proposals that are suitable for customers who are enable customers to get more proposals according to their own interests and enable entrepreneurs to develop products and services that meet the expectations of the customers [22].

VI. RECOMMENDATIONS

In this research, the researchers focus on developing systems for entrepreneurs to engage the relationships with customers. Therefore, in the future, additional modules for customers should be developed and focused on making decisions on the big data.

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Buddhist Instruction Care for Thai Elderly in the Upper Northeast

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Abstract— The paper aimed to clarify the Buddhist instruction care for planning Thai elderly to have well-being in the sociocultural settings concerning the elderly development project in Thailand. The objectives of this study were: 1) to clarify the management policy of the elderly development within the upper northeastern locale; 2) to discover conceivable thoughts of instruction care standards for the elderly through the principles of Buddhism, and 3) to create guidelines of Buddhist learning administration for planning the development of elderly well-being. The research methodology regarded the interpretive paradigm while the management of Buddhist learning was interpreted through participant observation, interviewing, focus-group discussion, and documentary investigation. The content analysis was performed to critically study the obtained data. In this research, there were 60 participants, including monks, elderly, government officials, community leaders, local philosophers, and villagers in Khon Kaen and Roi-et provinces. The findings indicate the Thai government policy provided the direction and budget allocation for developing the quality of life, welfare, and health of the elderly and also preparing younger generations to enter the elderly age. According to the document analysis and focus group discussion, it suggested the possible ideas of education care principles for the elderly through the Buddhist principles, particularly Bhavana 4. It also found that many projects have been organized for taking care of the elderly in collaboration with government agencies and communities. Those projects have been allocated budgets by the Thai government. The study suggested that Buddhist doctrine Bhavana 4 consisting of 1) physical development, 2) moral development, 3) mental development, and 4) intellectual development should be provided as the core content of the elderly's education care essentially affecting to the elderly life quality. The study indicates that the guidelines for Buddhist learning management for preparing elderly well-being, allowing the elderly to access the Bhavana 4 as it trains them to be endowed with Tisikkhā including moral discipline, mindfulness, and wisdom. Then, they could follow the Noble Eightfold Path that orients them to develop their well-being in Thailand's socio-cultural context.

Index Terms— *Elderly, Buddhist Education Care, Buddhist Principles, Thailand*

I. INTRODUCTION

A tremendous association between education and health generally, and functional health, specifically, amongst older adults, has been properly documented in the USA and different developed countries for a long period of time [1] [2]. Although education does now no longer directly affect the function, studies at the link between socioeconomic status and health indicate numerous viable intervening mechanisms that could provide an explanation for the association [3]. For example, education will increase income potential, which permits better access to the best hospital therapy and consequently better treatment of health problems. It improves access to occupations that have

higher running conditions. Education additionally improves health-associated knowledge, which increases the understanding of disease processes and ends in healthier lifestyles, which includes having healthier diets, not smoking, not consuming excessively, receiving ordinary checkups and preventive care, and care regimens. Many extra psychological links have also been found, along with those regarding stress, control, and social support [4] [2]. In the last several years, there has been the study of the education–health association in old age, extended to several developing countries in Asia where populations are rapidly aging and as a consequence, the demand for health care resources by older populations are in need. Many studies generally found a positive association between the education and health of older adults in Thailand [5]. The current research takes place in Thailand and focuses on the associations between education and functional health of the elderly age as several social, economic, and cultural factors that make Thailand an interesting setting to test the generalizability of findings from previous studies. Moreover, Thailand has a great cultural diversity with some different ethnic groups and approximately eighty percent of the Buddhist population [6] [7]. To prepare people to enter the elderly age, Buddhism could be taken into account for the content of care for preparing Thai elderly to have well-being in Thailand's sociocultural context [8]. Because of the significance of its principles, Buddhist doctrine has been used to develop the well-being of Thai people. According to the National Strategy 2018-2037, it is a crucial element used in developing and strengthening human capital, which is one of the key essential factors to propel the country's development in every dimension to become a developed country, driven by wisdom and innovation [4].

II. RESEARCH OBJECTIVES

The research methodology involved the interpretive paradigm as it aimed to interpret what government and community staffs should do for education care for preparing Thai elderly to have well-being in the Thai sociocultural context. Also, this study aimed to answer the following research objectives:

1) to clarify the management policy of the elderly in the upper northeastern region;

2) to find possible ideas of education care principles for the elderly through the principles of Buddhism;

3) to develop guidelines of Buddhist learning management for preparing elderly well-being.

III. RESERCH METHODOLOGY

Research Design

This study was a Qualitative Research as a Field Study for obtaining concepts, principles, backgrounds, relation, and learning management in Buddhism of the elderly in the study area. The procedures were as follows:

1) Study and select a community which had a role in organizing activities in the Northeast by using Purposive Sampling,

2) Study and collect interviewing information by arranging the focus group with monks, community leaders, government officers, and elders,

3) Proceed with the synthesis of concepts, designs, and Buddhist learning management for elders focusing on the coordinative process of involved people in conducting this research,

4) Summarize and present the result of a field study by analyzing important issues: concepts, principles, backgrounds, designs, constructive procedures, and ways of learning management in Buddhism of elders aiming at its result to disseminate to a society which was each Provincial Office of Buddhism in the Northeast.

Area and Key Informants

1) The area of this study was to study temples and communities that organized Buddhist activities for the elderly in Khon Kaen and Roi-et provinces.

2) Key Informants were 60 people of a target group in Khon Kaen and Roi-et including 20 monks – snowball – selected from the monks who have a project about the elderly development; 20 elders who participate in the projects; 10 outstanding people in organizing projects such as community leaders, local philosophers, and villagers; 10 government officers in Khon Kaen and Roi-et provinces.

Research Tools

1) The research tools were as follows:

a) In-depth Interview Form, it was used to interview monks on status, role, concept, knowledge, and management of Buddhist learning for elders as well as the

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factors of barriers and successes in passing a body of knowledge in Buddhist learning management for elders.

b) Focus Groups Form, it was used to interrogate monks in status, role, concept, knowledge, and management of Buddhist learning for elders as well as the factors of barriers and successes in passing a body of knowledge in Buddhist learning management for elders.

c) Observation Form, it was used to observe the fundamental information of the studied area in Khon Kaen and Roi-Et ran by Participatory Observation.

Research Tools Development

a) Research Tools Construction

1) Study documents, articles, related works in drug prevention and solution,

2) Construct an 'In-depth Interview Form' in accordance with the conceptual ideas and objectives.

3) Construct 'Focus Groups Form' in accordance with the conceptual ideas and objectives.

4) Construct 'Observation Form' in accordance with the conceptual ideas and objectives.

b) Research Tools Verification

1) Researchers submitted constructed tools to 3 experts to consider Content Validity.

2) Researchers consulted with research advisers with verified tools.

3) Researchers developed completed tools and continued data collection.

Data Collection

a) Preparation before proceeding with data collection

1) Ask for the official letter from Mahachulalongkornrajavidyalaya University, Khon Kaen Campus to inform objectives and benefits of the study to a target group,

2) Bring the record of Focus Groups Form to research assistants who were responsible for note-taking and informing the details of research conducts in this step.

b) Data collection of Fieldwork

1) Held the meeting with a target group to do self-introduction and inform objectives of the study, and to ask for the coordination together with explaining the details in questioning,

2) Utilized the interview in data collection due to its flexibility in which there were two steps as follows:

2.1 In-depth Interview was used to continue the interview or face-to-face conversation. In so doing, the interview area was a peaceful place so that the interview would go on continuously with full of required details;

2.2 Focus Group Discussion was to collect the data to measure the knowledge, attitude, and behavior of humans as well as influential factors of behavior. The received answers were in line with considered reasons by the conversation group members. The questions were for gaining feeling, giving reasons, knowing motivations as well as the decisions and attitudes on occurrences or various things focused on giving opportunities to every member in a conversation group.

3) Utilized the Observation as a Participatory Observation and did fieldwork for data collection. There were two phases of the observation: Phase 1 was 'before conducting the research' and Phase 2 was 'during researching with data collection'. In the studied area along with the observation of way of life in the community was proceeded by Structures Observation, which was observing specified issues obviously and absolutely and recorded only specific issues.

Data Analysis

1) Analytical Induction: the researchers summarized the occurrences and several issues according to the involved questions.

2) Content Analysis: this was descriptive analysis, but it actually was to codify and summarize the data from documents and information technology as well as from In-depth Interview, Focus Groups, and Observation.

IV. FINDINGS

Policies for Elderly Management

The government policy primarily emphasizes the quality of life, welfare, and health of the elderly and preparing people to enter the elderly age as seen in the National Elderly Plan (NEP) implemented for more than 15 years. NEP is renewed as the National Elderly Plan No. 2 (2002-2021). In the 20-Year National Economic and Social Development Plan and National Strategy (2017-2036), the policy on the elderly development operation is financially supported. The government policy now encourages the elderly to continue working and taking part in the labor market even if its proportion would be less or more dependent on the personal conditions of each elderly such as readiness and social supports. The policies could be separated into three levels as follows:

1) At the national level, the Department of Older Persons (DOP) established in 2006 works with the Office of Permanent Secretary of Ministry of Social Development and Human Security (MSDHS), responsible for inspiring old people to continue working or even finding opportunities to work. The strategic contingency plan has been obviously

formulated for specifying goals and indicators by invited scholars and cooperated with top-down state agencies for the second period of the long-term elderly development.

2) At the ministry level, the main ministry providing service to the elderly is the Ministry of Public Health and Ministry of Social Development and Human Security. However, there is no mechanism to connect both ministries in the same workplace. Although there was a try to integrate plans among bureaus, it is in the beginning period.

3) At the operation level, provincial agencies developed the service according to a plan and support in academic supports from educational institutions. The law stipulates elders to have security, health care, social service, religious study, necessary information, career, self-development, social cooperative activity, facility, public service, and accommodations. Moreover, the elderly support fund was established to support the government mission and tax deduction is given to those who make donations or support the projects. However, there is no national older person committee responsible for implementing the provincial policy and plan and the number of officials responsible for the mission is inadequate.

In addition, the right for elderly is regulated in the Constitution of Thailand and the Elderly Person Act consists of several sections promoting security, life quality, welfare care, and fundamental service. The Department of Older Persons creates an elderly development manual in line with the Elderly Person Act 2003 to create public awareness of the elder important rights related to medical treatment, public health, education, religion, career, facility, residence, transportation fare reduction, and any other public service. Now, many policies, laws, and regulations for elders are created and inserted in the strategic plans of the Ministry of Labor, Ministry of Public Health, Ministry of Social Development and Human Security, Ministry of Defense, Ministry of Education, Ministry of Justice, Ministry of Tourism and Sports, Ministry of Culture, Ministry of Transport, and Ministry of Finance. Thus, it shows that Thailand gives great precedence to life quality development for elders. It is to say each agency tries to legislate as the tools to drive its mission. Also, those laws covered the Four Requisites in life: clothing, food, lodging, and medicine; and many ministries give the elders more privileges than those of younger people. The enactment of life quality for elders is worth, but its weakness appears in how elders could reach and understand the details of law for instance according to an announcement from Ministry of Social Development and Human Security on Regulation, Method and Condition for Security, Promotion, and Support in Funeral Management in 2004, 2,000 Baht is given to the elderly funeral management

but many people do not know about this privilege even if it has been announced for 16 years.

In the upper northeastern region, according to the central policy, Khon Kaen and Roi-et responds to the policy by applying it as a service to many areas depending on the roles and duties of each agency. However, the main issue is to build self-reliance for the elderly and get them to live happily in society. The results of this research show that there are many agencies such as Khon Kaen Provincial Social Development and Human Security Office, Khon Kaen Social Welfare Development Center for Older Persons, the Sixth Academic Promotion and Support Office, Temples or Meditation Centers, Elderly School, Buddhist Club, and Department of Local Administration strongly follow the government policy in working process and this results in empirical success. In Khon Kaen and Roi-et, in both extended and single-family; a family is the most important unit in taking care of elders and the caregiver is a grandchild or family member. Although most elders in the research area could live by themselves, the family members still play an important role in taking care of them. However, for those who are alone, handicapped, and have no children, the government unit provides them caretaking. Anyhow, in a remote area, some of them cannot access to this service.

Management and Buddhist Doctrines for the Elderly

Based on the study, the management principles (POSD-CORB) for the elderly development are as follows: 1) Planning, there is an operational plan with monthly meetings on providing facilities, food, transportation, organizing activities and co-operation with of different units. 2) Organization, there are designated organizations, segmentation and clearly defined duties. 3) Staffing, there are personnel from each of seven organizations in the research areas such as Khon Kaen Provincial Social Development and Human Security Office, Khon Kaen Social Welfare Development Center for Older Persons, the Sixth Academic Promotion and Support Office, Temples or Meditation Centers, Elderly School, Buddhist Club, and Department of Local Administration that conducted activities as planned. 4) Direction, all organizations have the supervisors to control the operations, and give orders; and there are leaders to command operations in coordination with other agencies. 5) Coordination, there is the ongoing collaboration between government agencies and communities. 6) Reporting, the operational results in both verbal and written forms are reported to the administrators and members of the organizations to realize the movement and progress of the mission. 7) Budget, for the main budget for the operation

related to the elderly development, there are two sources of budget: government support and donation. Supported by the government, Khon Kaen Provincial Social Development and Human Security Office and Khon Kaen Social Welfare Development Center for Older Persons, the Sixth Academic Promotion and Support Office are the main agencies to administrate the elder development operation. Yet for the temples or meditation centers, elderly schools, Buddhist club, and Department of Local Administration are supported by donation or fund raising. For example, Ta Phra Sub-district Elderly School got the budget, 216,600 Baht, from Energy Regulatory Commission Service Area 4, and annually 100,000 Baht from Ta Phra Sub-district Administrative Organization.

In regards to the principles of Buddhism for the elderly development, the doctrine called 'Bhāvanā 4 (Development)' is significantly used in the operation. That is, 1) in terms of the physical development called 'kāya bhāvanā', it is the development of the body to be healthy and most importantly a relationship with the physical environment. 2) Moral development called 'sīla bhāvanā' is the development of morality of the elders to have betterment of behaviors and conducts. 3) Mental development or 'citta bhāvanā' is to develop the mind to have good qualities such as positive thinking and consciousness. 4) Intellectual development or 'paññā bhāvanā' is the intellectual development to have knowledge and understanding of reality and to perceive the natural laws of all arisen things.

Guideline of Buddhist Learning Management for Elderly Well-being

The focus group and document analysis suggested the guidelines of Buddhist learning management for preparing elderly well-being. They suggested that the elders need to follow the Noble Eightfold Path which is the 'core teaching' of Buddhism. Then, they could access the Bhavana 4 [9] as mentioned above. In order to educate the elders to practice Bhāvanā 4 and follow the Noble Eightfold Path, they need to understand the concepts of the Threefold Training (Tisikkhā) [9] including Moral Discipline (Silā), Mindfulness (Samādhi), and Wisdom (Paññā) as follows.

1) Moral Discipline is a learning process in Buddhism elders could follow to develop the ways to control their behaviors, create human relationship, self-adaptation in communities, society and environment.

2) Mindfulness is a mental training process of good mind. It is to train subconsciousness, necessary in working. The elders train their mind to avoid bad deeds and evil thoughts.

3) Wisdom is a learning process to have the right knowledge caused by the right viewpoint, belief and thoughts. Wisdom is the mind and awareness controller so that man who kept on it would see the reality of things.

VI. RECOMMENDATION

The recommendations on the Buddhist education care of the elderly in the upper northeastern region are as follows:

1) Policy Level: According to the research result, the policies of the government should be declared to the elders through various channels. In regards to the proportion of elders' works, it should be seriously considered as it has to suit personal conditions of the elderly. Therefore, all parties should promote enhancement of life quality of the elders in response to the government policies.

2) Application of Research Results: Noble Eightfold Path, Bhāvanā 4 and Tisikkhā should be used to develop and create the moral training project for the elderly quality of life development. The manual of this training project should be published and used to organize the project in other regions.

3) Future Research: Future research should study on an administration of Buddhist curriculum that is proper to development of elders' lives; an innovation for enhancing Buddhist learning for elders.

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Management of Elderly Health and Welfare of the Elderly School in the Northeast

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Abstract— The study entitled management of elderly health and welfare of the elderly school in the Northeast aimed to study the appropriate model for enhancing the health of the elderly in the northeast, and to strengthen cooperation in the management of health and welfare of the elderly in the Northeast. Qualitative research was conducted and the research tools were interview form and focus group discussion guidelines. Data were collected from in-depth interviews of 10 key informants who were senior school administrators, and also from focus group discussion with 15 experts. Qualitative data were analyzed using content analysis. Research findings indicated that strengthening elderly health has been promoted to allow older people to have activities in the community with statistical data. Comparative activities between provincial communities and community activity have taken the activity to develop and adjust the model to be suitable for the elderly and is relaxing the stress of the elderly from being at home without any activity. Promotion and health management elderly welfare promoting food hygiene arrange activities on health care to be correct promote exercise that is suitable for the elderly at least 2 days per week as well as encouraging families to be aware of the daily life of the elderly and holistic health care.

*Index Terms— **Management Elderly School, Health and Welfare, Northeastern***

I. INTRODUCTION

Old age is the last age of life. It is characterized by physical, mental, emotional, social, age-specific changes that can lead to health problems caused by disease. Therefore, the elderly should be given special care, and providing care and assistance to promote health must be considered both physically and mentally to maintain good health to slow down the deterioration of the body and prevent the occurrence of disease. While the tendency of the elderly to live alone or be alone with their spouse increases, it affects the provision of care for the elderly both physically and mentally. The older the age is the more sickness especially sick with sterile diseases such as high blood pressure, diabetes or high blood fat which of these diseases are all likely to increase and are incurable. Resulting in a dependence and need for continuous and long-term care, many older people have osteoarthritis problems and half of the elderly have fewer than 20 permanent teeth, which make them unable to chew and affect the daily life [1]

Thailand is entering an aging society. This is due to the dramatic decrease in the birth rate of Thai people and the longer life of the Thai people. Thai society is aware of the situation of aging and the future of aging society in Thailand. It can be seen from the structure of the Thai population aging very quickly. Population wave generation born in the years 1963-1983, also known as the "million birth generation", aged 30-50 years in 2013, is moving to become a large aging population in the next 10-20 years, making Thailand is less than ten years, 2018 will be the first time in history that Thailand will have older people than children. The elderly population is approximately one-fifth of the total population [2]

Department of Health in collaboration with other departments of the Ministry of Public Health realize the importance of improving the quality of life for the elderly. Therefore, it has joined the work plan "Health Promotion Project for the Elderly and Disabled" by integrating with network partners, especially local government organizations [3]. It has an important goal to promote and

modify healthy behaviors for the elderly to have desirable health by incorporating the standard of holistic health care including physical and mental health encourage and support the elderly to access comprehensive and equitable health management, develop a service system for health care for the elderly to have quality in place and proactive service in the community, promote and support families, communities and local communities to take part in caring for the elderly and the disabled to have a good quality of life [4].

To prepare for the setting up of a school for the elderly and to be aware of the effects of the aforementioned trends in population change that began to appear in the community. The number of elderly people living with chronic diseases is increasing especially mental health problems depression in the elderly from neglect to live alone through the process of exchanging knowledge and taking part in setting up promotion strategies. It is to support the development of the elderly to have the ability to take care of their own health and the elderly together under the strong social capital of all network partners [5]. The school for the elderly is considered a learning center for health management at the district level. It is to be the center for the whole network learning involved in the development of proactive, participatory and strategic planning for the learning of elderly health management including people of all age groups especially before the elderly in taking care of their own health to prevent chronic illness extend the period of illnesses caused by the deterioration of the physical condition including reducing the age dependence on the labor force at the family and society level, preparing to deal with important phenomena affecting Thai society[6].

II. RESEARCH OBJECTIVES

The objectives of this research were to study the appropriate model for enhancing the health of the elderly in the northeast, and to strengthen cooperation in the management of health and welfare of the elderly in the Northeast.

III. RESEARCH CONCEPTUAL FRAMEWORK

The research on management of elderly health and welfare of the elderly school in the Northeast can be written as a research conceptual framework as shown in Fig. 1.
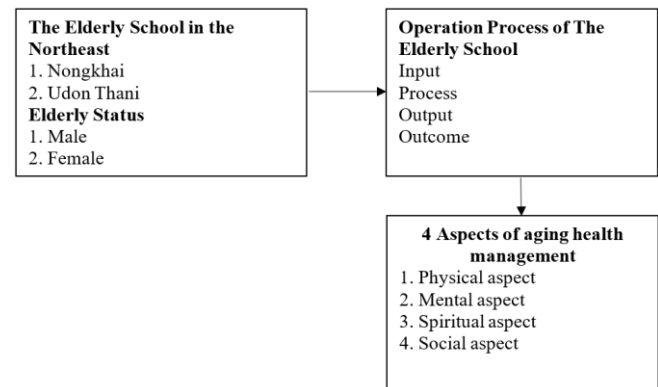
Fig. 1 Conceptual Framework

IV. RESEARCH METHOD

The Elderly School: Health and Welfare Management for the Elderly in the Northeast, as a qualitative research, the researcher has conducted as follows.

A. Research Sampling

1) Interview from key informant using in-depth interview, the researcher was selected by purposive sampling that consisting of (1) elderly aged 60 years and over entering studied in an elderly school in the upper northeastern region 1, consisting of Nong Khai and Udon Thani Province, totaling 12 people, (2) the principal or the president or the director and board volunteer lecturer in the upper northeastern region 1, consisting of Nong Khai Province and Udon Thani Province, totaling 8 people.

B. Research Tools

(1) In-depth interview on related issues in both formal and informal formats, the broad issue / line of questions is used as a lead-to-conversation question, where the informant plays a role in directing the conversation with the interviewer to achieve the goal of understanding the issues together, key informants were selected by purposive sampling.

C. Data Collection

Data collection from in-depth interview (Qualitative Research) was used by in-depth interview and Fogus Group discussion in operation as follows:

(1) Request a book from the Buddhist Research Institute Mahachulalongkornrajavidyalaya University, which is to request permission and request cooperation

to the executives or the head of the target group to collect the information along with attaching interview questions, so that the main informant understand the point of the question and to use as information in preparing for interviews:

(2) To collect information from interviews on the date, time and place with record and note taking.

D. Data Analysis

Data analysis by using the content analysis method to categorize the content and then use the systematic synthesis by presenting it in descriptive writing.

V. RESEARCH FINDINGS

Research study on "Management of Elderly Health and Welfare of the Elderly School in the Northeast**",** was obtained from the study and discussed the following objectives.

1. Process of the school for the Elderly in the Northeast Region, elderly people in urban communities, factors affecting the elderly in the community tend to live long. It may be from lifestyle and dietary habits that will have better physical and mental health than the elderly in the city who have stress free and live near the grandchildren, and not left alone. They can live as usual and have regular activities such as getting up early, cooking food, making merit, sweeping the house, rubbing the house and raising grandchildren. Elderly people in rural communities, there will be a variety of activities to do and is a way of life that is not stressful because he has done activities that he likes gardening combines the sufficiency economy, raising animals, weaving mats, wickerwork, food processing and grocery stores of the elderly community. The elderly in urban communities, they are older people who used to receive civil budget and have more monthly pensions than rural communities. Some people will have their own business such as a dormitory for rent, a shop, or someone receive support from their children. The elderly in this group will have a good quality of life. However, in the case of the elderly in the city with no regular income still struggling to make a living. The elderly in this group will feel stressed and worried about the way of life in the future.

2. Appropriate model to promote well-being of the elderly in the Northeast should encourage the elderly to join activities within the community and collecting statistical data being kept to develop activities for the elderly. There is an artificial comparison between rural communities and urban community activities. How much of the effect on the well-being of the elderly? Therefore, that activities can be used to develop and improve the model to be suitable for the elderly. This will encourage the elderly to be relaxed the stress of staying home without any activity. It also promotes physical and mental well-being.

3. To strengthen cooperation in health management and welfare of the elderly in the Northeast, it should promote activities in the community that affect health and the welfare of the elderly regarding their behavior organize activities on health care, eating properly and encouraging children to apply to the household for elderly practice. Setting a form of exercise that is suitable for the elderly at least 2 days a week as well as promoting family awareness of the daily life of the elderly. Overall health care of the age is set since the bathroom resting place and mattress to suit the body of the elderly. If the care is not hygienic, it may be dangerous to the elderly.

VI. DISCUSSIONS

1. Study the process of the elderly school in the Northeast from the study of the process from the documented data and the field visitation. The data were analyzed and synthesized the appropriate process for the elderly school. It is to promote the health of the elderly will lead to the improvement of the quality of life of the elderly including finding ways to coordinate and integrate relevant personnel / agencies in building a social network mechanism in the community. Both dimensions of health care in the body, mind and dimensions of relationships at the family and community levels on average, the elderly tend to live longer than the elderly in urban communities. Factors affecting the elderly in the community likely due to dietary behavior mental health care not stress with grandchildren to take care of the elderly did not leave the elderly alone, which is consistent with the research by Woranyoon Rirom (2016) [7] that the elderly had a good overall health behavior. When considering each aspect, it was found that the diet in a very good level, followed by spiritual development interpersonal

relations in stress management at good level. The exercise and health responsibility were at a moderate level, respectively. The elderly had a high level of need for overall health enhancement. It was the item that had the highest level of need for holistic wellness, followed by mental well-being. Social well-being and physical well-being, respectively.

2. Appropriate model to promote well-being of the elderly in the Northeast should promote the elderly to have daily activities and joint activities in the community. It is a lifestyle that affects the physical and mental health of the elderly, such as getting up early, making breakfast together with the merit making and community volunteering activities for the elderly. There were joint activities that related to Phumisak Sanamchaisakul (2014) research [8] which found that the activities that they liked and wanted the school to organize were health care education followed by a health check and recreational activities. What is the most demanding of the elderly is that the school is spacious? The management model of the school to create happiness (elderly people) in Ban Tio district found that the factors that contributed to the school's success were there are retired teachers who have volunteerism with unique abilities to help them perform the work forcefully, making sacrifices without any compensation. Useful activities are organized for happy students, fun and unity, cooperation in doing good activities, have an exchange of knowledge together making the school a center of cultural inheritance [9].

3. To strengthen cooperation in health management and welfare of the elderly in the Northeast should get the cooperation of many units especially hospitals that promote health and communities jointly manage a model for the elderly. It is to have physical exercise activities and organize activities that promote income for the elderly sufficiency economy integrated farming collectively prepare in order to cause income and to exercise in the body or promoting merit-making. It will promote mental health and happiness, talked about Dharma to take care of the health from the mind as well as the consumption of food according to the principles of nutrition in the elderly holistic exercise. Therefore, the bond in the community age together is consistent with the research of Chanthana Mahamongkol (2004)

[10] that found that the community bond of elderly people in Thamaka District Kanchanaburi. It is a factor that influences social activities of the elderly health awareness. It is a factor affect their participation in social activities of the elderly, indicating that when the elderly were perceived that their health is at the level of illness highly likely to have less participate in social activities. Likewise, when the elderly have perceptions of one's health as less illness or good health is more likely to have taken part in social activities [11] [12].

Fig. 2 Pictures of school activities for the elderly

VII. BODY OF KNOWLEDGE FROM RESEARCH
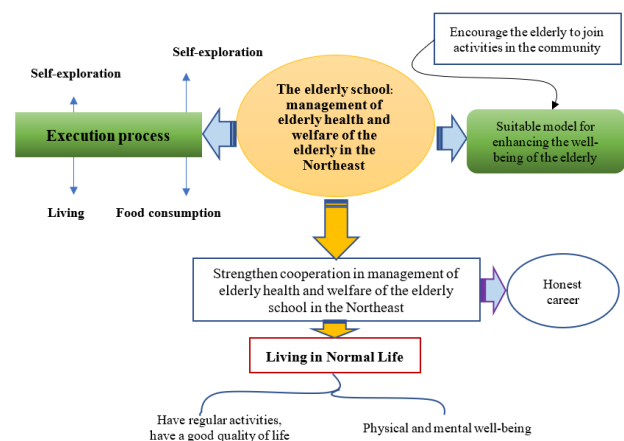
Fig. 3 Management of Elderly Health and Welfare of the Elderly School in the Northeast

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VIII. RECOMMENDATIONS

A. Recommendations for Policy

1) The sector should focus on the community that should set the foundation for alternative services for the care of the elderly in the future is laid provide a surveillance system to recognize the problem of the elderly, their real needs as well as a systematic storage and analysis of community data. For the benefit of planning effectively, the elderly and the disabled in the community by dividing the elderly into cases.

2) Government agencies or related agencies should promote the creation of activities / projects for the elderly in the community to be linked with religious activities such as Songkran Day, Seniors day, or educational activities to visit works in art and culture.

B. Recommendations for future research

1) Should study the impact on the living of the elderly and the actions on the elderly school from COVID 19.

2) Should study the factors affecting the social activities and the overall well-being of the elderly in Thai society.

CONCLUSSION

Conclusion from the study of concepts, theories, related research, and data collection from in-depth interviews, the data were analyzed and synthesized according to the research objective. Trend of the elderly in provincial communities will have a strong physical and mental health caused by having a resting place or a center for activities of the elderly, such as a temple. It can be set as a center for doing community activities that will allow the elderly to have activities together directly affect health especially activities that the community or the temple. It is held in various festivals, and the elderly will have activities together. Therefore, the elderly in the community has a variety of activities together, and it is a way of life without stress because they do activities that they like and are good at such as sufficiency economy ingredient farming, gardening, vegetable storage, animal husbandry, mat weaving and grocery stores of the elderly community. They have time to take care of the children. Government agencies and communities should be developed activities for the elderly to suit the operating conditions and to promote ongoing activities. It will have a positive effect on the well-being of the elderly and more importantly, there must be a promotion activity that can generate income for the elderly as well. It will make the elderly proud to have their own income and no need to suffer from their children, it promotes mental and physical well-being.

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Chutti Classroom: The Experience in reflecting on the Learning of Kathakali Chutti (Makeup) at Kerala Kalamandalam

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Abstract— The paper is a part of ongoing PhD research. The purpose of this study was to explore the hand on learning of craft practice which were Kathakali chutti (makeup) and costumes making by employing the tacit theory of Harry Collin: relational tacit knowledge, somatic knowledge, and collective knowledge into analysis process and discussion. The data collection was through immersive learning as a deep study by immerse self to practice and to learn with students at Kerala Kalamandalam. The result of exploration indicated that while the learning of younger students may be through emulation and repetition, the practitioner's knowledge is gained through self-conscious means of logical thinking and mathematic approximation, gaining the somatic tacit knowledge that the teacher has. Also, collective tacit knowledge is relevant, because during interacting with cultural background and society, it is very different from the practitioner's previous experience, and yet through the immersive experience, the practitioner is able to gain the knowledge and skills not otherwise available to an outsider.

Index Terms—Kathakali Chutti, tacit knowledge, craft practice, immersive learning

I. INTRODUCTION

The paper is based on ongoing PhD research. The "immersive learning" employed as a learning process in craft practice for the research method. In this context craft practice means, *Kathakali chutti* and costumes making which teach in Kerala Kalamandalam.

The researcher immerse self as a tool to the subject and the *Kathakali* community for the dept understanding of all context, especially learning process in *chutti* classroom. The self-practice is the journey of research in order to understand the significance of tacit knowledge in craft practice.

In this content *chutti* is the three-dimensional makeup of *Kathakali* with the various stylized of paper placed on the performer's face. There are six main types of *chutti* according to paper cutting and pattern: *Paccha*, *Kathi*, *Chuvana tadi*, *Vella tadi*, *Karutha tadi*, and a special character such as Narasimha.

II. RESEARCH OBJECTIVE

The purpose of this study was to explore the hand on learning of craft practice which were *Kathakali chutti* (makeup) and costumes by employing the tacit theory of Harry Collin: relational tacit knowledge, somatic knowledge, and collective knowledge into analysis process and discussion.

III. CRAFT: HAND, SKILL, AND KNOWLEDGE

If Craft is essentially defined as physical involvement and making things by hand. In Craftsman [7], Richard Sennett studies the connection between hand and mind. Evidence shows that the sense of touch is more powerful than visual perception, and the coordination of hands, eyes, and brain will help to position perfect skills. Sennett cites Immanuel Kant saying that "the hand is the window on to the mind [7]." He claims that the "hands make the most varied movements, movements that can be controlled at will," and the "hand's varied ways of gripping and the sense of touch, affect how we think [7]." Rudolf Arnheim [9] also discusses that the "touch and imprint of the human hand" is valuable as an individual quality of skill which cannot be replaced by machine [9] so that in craft, hand is a significant part of the body, which is connected to the way one creates an artwork. He states that "among the organs of the human body the hand has the most refined motor behavior to be encountered anywhere in nature [8]." The sense of touch is the most powerful perception that we use to develop our skill, and as Charles Bell points out that, "the brain receives more trustworthy information from the touch of the hand than from images in the eye (Bell in [7], 150)." The practice of making things in art, craft, and design, therefore, depends on the "repeated exercise of the hands [6]." Sennett adds that "the skill of physical concentration follows rules of its own, based on how people learn to practice, to repeat what they do, and to learn from repetition

[7]." While the sense of touch and making things will affect to the way we think and perceive knowledge, the craft is greatly based on skill and the accompanying ideas of perfection.

Glenn Adamson claims that "skill [is] conceived as knowing how to make something [1]." The 'beauty' of the thing, which is made by hand, has been judged from different perspectives due to individual background, experience, and knowledge. One of the main perspectives is that to reach perfection, one has to practice and repeat the skill. Adamson says that the "crafts skill never comes for free: it must be learned [1]." The skills and technique in craft is a form of knowledge that is not always easily articulated in verbal language.

This is called tacit knowledge— a term coined by philosopher Michael Polanyi. He said that "we can know more than we can tell (Polanyi in [2])." Tacit knowledge was used to explain especially knowledge related to skill, such as art, craft, design, music, and performance. It is a kind of knowledge that is "indeterminate, in the sense that its content cannot be explicitly stated. We can see this best in the way we possess a skill [5]." Also, for Polanyi, all knowledge is tacit. He said: "While tacit knowledge can be possessed by itself, explicit knowledge must rely on being tacitly understood and applied. Hence all knowledge is either tacit or rooted in tacit knowledge [5]." A lot of knowledge relies on skills and intuition, or the ability to understand a thing without using logic. Polanyi sees this as the "mechanism that produces discoveries by steps we cannot specify [5]." This is supported by Louis Arnaud Reid, who says that while the "concept of knowledge is much wider than that of intuitive knowing… there can be no knowledge at all without the presence, at some stage, of direct intuitive knowing [3]." This is a very strong position—one that can be evidenced in the way we learn skills by interacting with others, and by making things with one's own hands.

Harry Collins takes an opposite position on tacit knowledge and intuition, one that makes the concept less rigid. He says that tacit knowledge can become explicit and not remain uncommunicative. He also claims that intuition is "the ability to make good judgments. It is seen as 'wisdom based on experience,' and 'can be gained through practice and socialization [2].'" So, intuition is related to conscious judgment, and not something we cannot tell. Collins proposes three areas of tacit knowledge: relational tacit knowledge, somatic knowledge, and collective knowledge. Relational tacit knowledge has "to do with the relations between people that arise out the nature of social life;"

somatic tacit knowledge is that which is "inscribed in the material of body and brain;" and collective tacit knowledge is that which "the individual can acquire only by being embedded in society [2]." In reflecting on the learning of *Kathakali* makeup (*chutti*), it seems that it involves all three parts of tacit knowledge. The PhD learning through the process that Collins describes as "explicit knowledge…transmitted by the close proximity between teacher and learner along with guided instruction [2]." While the learning of younger students may be through emulation and repetition, the practitioner knowledge is gained through self-conscious means of logical thinking and mathematic approximation, gaining the somatic tacit knowledge that the teacher has. Also, collective tacit knowledge is relevant, because during interacting with cultural background and society is very different to the practitioner's previous experience, and yet through the immersive experience, the practitioner able to gain the knowledge and skills not otherwise available to an outsider.

IV. Immersive Learning

A. Immersive Learning Approach

Immersive learning, the term used in educational pedagogy mainly is in e-learning. It is considered as active learning encourage a student to engage and involve in the subject [11]. The online course focuses on building the environment and design activity for the learner to engage in the subject, rather than face to face learning. Taking an example, the learner enters the 3-dimensional virtual world of nanoscale which set up in the computer program. The learner experiences different views of the subject matter. In this sense, it means of immersive learning that learner experiences the new world. In contrast to the general term, The researcher employs "immersive learning" in much the same idea of engagement to the subject, but not distance from the teacher.

According to the different nature of subject learning, craft practice is different from e-learning. Craft involves the physical movement and making thing by hand. The learning process engages with the perception of learner so that the real environment and the body are important for "immersive learning" in gaining craft knowledge. Samie Li, Raafat, and Danielle [10] suggested: "three primary perspectives at which immersive learning is utilized: in an experiential environment, through a constructivist method, and via active collaboration." The researcher applied the idea of three primary areas into the reflective of *chutti* learning classroom.

- Experiential immersive learning: Students experience the environment and the lesson in the real world by senses such as the sense of touch, the sense of visualizing, the sense of listening.
- Constructivist method: Students learn at their own pace. It is the self-motivation of individual that eager to learn such as the practice *chutti* by themselves apart from the classroom.
- Social and collaborative learning: Students share and learn from each other. The classroom of *chutti* has a senior student. They pass on the knowledge not only from teacher to student, but it is from student to student as well.

It seems like the primary area of immersive learning is already existed in *chutti* class in Kerala Kalamandalam learning process. Even though immersive is one of the various ways of learning but immersive is an effective learning process especially for the knowledge of the craft.

B. Chutti classroom

Kerala Kalamandalam is the one of remain Gurakulam academic institution in India. Behind the foundation of this institution is that pupils have to live near or with the guru, like living with family. In fact, the students live and stay on the campus or school during their study. Moreover, Kerala Kalamandalam is an institution of art and performing art school, therefore, focusing on practice and practical class is mandatory for the students. It is necessary to have an early morning class for special exercise and body movement. In this way, students have to remain their discipline. Living in the campus is the way that the student can devote themselves to that art. The admission accepts a student from the young age of 12 to 13 to start the class. Kalamandalam has the course until the degree certificate and higher education. All classes are related to classical dances and theatre forms like *Kathakali*, *Koodiyattam*, *Nangiar kootu*, *Otta tulla*, dance; *Mohiniyattam*, *Kuchipudi*, *Bharatanattam*, *Panchavadyam*; *Mizhavu*, *Maddalam*, *Chenda*, *Iddaka*, vocal *canartic* music, and *Kathakali chutti*. Nowadays the class combines practical class in the morning and general academic class in the afternoon whereas in the old-time they studied full-day the practical class only.

The documentation and practice though immersive learning process where the researcher attended class and practice with students at Kerala Kalamandalam was from 2016 untill March 2018. In class, the sitting position was related to the seniority. In general, a first-year student sits at the right side facing the door. Next to the first-year student is a second-year, a third-year student and so on respectively.

These sitting positions revealed the hierarchy concept in their society. At the same time, it is about the class system and learning process within their community as well.

The first-day class begins with the process of controlling rice paste lesson. Students sit on the floor with terracotta pot in front of them. The terracotta pot has painted with green colour on the bottom of the pot which is flipped upside down. It paints in the form of *paccha*[1] character. The student draws the borderline of painting with rice paste. It is the basic step to learn from the first *pacha* character. The rice paste has the ingredient and process to make with the right proportion. It combines rice paste and lime in 3:1 proportion. In the right proportion, the rice paste can be controlled. The rice paste is not too thick or too thin. A student has to practice to draw and spread the borderline with rice pasted neat and skilled enough before further to the next lesson. At the same time student has to practice to draw *Kathakali* characters with extra time out of the class with his seniors or teachers. The drawing practise helps students to understand the proportion of the facial structure and the aesthetic construction of *Kathakali* characters. The next lesson after a student can control rice paste well, is paper cutting. The paper process has a pattern and sequent to follow. Teacher or in Malayalam called *asan*. *Asan* teaches a student step by step. One teacher will teach one student closely. In the paper cut process, student dose it without a specific calculation, hence the student has to observe and use their intuition to learn. The paper shape cutting cannot be copied by placing one paper on another, on the other hand, the student has to cut a new paper every time of practicing to make one character. The reason for cutting a new paper every time because the student has to learn to observe the curve, the line of the terracotta pot. In this practice, a student can gain enough skill to practice with a human face which is more complicated in the real situation. Human faces differ in curve and line so that the practice helps a student to notice and adept technique in various situation. In the basic practice, here are three layers of paper placed on *pacha* character. The papers are three steps in size. The three layers of papers will be placed on the white border line of rice paste that student practice to draw in the previous stage. After the student gains the skill of practice on the pot. They are allowed to practice on fiberglass model and then step to the real human face. In the human face practice, students will practice with their friend in the class or with other *Kathakali*

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[1] *Paccha*: Noble character represent high born heroes, with a good mind. The face is painted in green as the main colour. Black colour is painted on eyes and eyebrow with the yellow colour symbol on the forehead. The characters represent *pacha* such as Sri Rama, Lakshmana, the five pandava brothers, Bharata, Sri Krishna, Lord Vishnu, Lord Shiva, Nala, etc.

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students. Sometimes students will practice with their friend as their homework. Apart from *chutti*, the student has to learn how to make costumes at the advance level year of study.

Student of *chutti* class have to study and practice all the main *chutti* characters in order to succeed in the lesson.

Fig.1 *Chutti* classroom,2016

V.   TACIT KNOWLEDGE IN KATHAKALI CHUTTI

There are two types of knowledge according to Knowledge Management (KM) which is explicit knowledge and tacit knowledge. Explicit knowledge refers to the knowledge which can be codified and digitized in books, documents, reports and memo. It is easily to articulated, identified, shared and employed. Tacit knowledge related to personal wisdom within the mind of people. It embedded in the human mind through experience and practice. Moreover, tacit knowledge is difficult to articulate in verbal language. It is more difficult to extract and codify. These also include insights, intuitions.

Chutti is the art of *Kathakali* three-dimensional makeup. It can categorize as a craft practice related to hand skill. To learn *chutti*, is the repetitive practice. A student has to gain skill from each lesson. Student deals with the nature of each material which employed in making process such as coconut stick, rice paste, paper, wood, gold sheet, wool, jute, etc. A teacher teaches students by demonstrating or doing the sequencing process. The student will not know the weight of hands, the measurement of the material that teacher performs during demonstration therefore with observing and intuition only help them for the learning process. However, this is not completely the repetitive practice but with the consciousness, the student aware and improve themselves for the better.

Harry Collin (2010) posits tacit knowledge in three different forms. He explains that "Collective tacit knowledge turns on the nature of the social, somatic tacit knowledge turns on the nature of the body, but relational tacit knowledge is just a matter of how particular people relate to each other."

- Relational tacit knowledge

  The *chutti* class felt into relational tacit knowledge in the way that the student and teacher come from the same cultural background. At the same time as it is tacit which required direct communication. It cannot pass by the third person as Collin mentioned "the tacit is communicated by "hanging around" with such person." It is the tradition that students of Kalamandalam have the opportunity to observe the real situation of the performance. The green room is the backstage area providing for performers to prepare makeup and dress. The student of *chutti* and Kathakali will hang around the green room to observe artist work. Observation is a part of their learning that student is around to help senior artists or their teacher. Some of the knowledge which passes on only their community can be learned by joining their group. In such knowledge that hidden will be learned by close to the master.

- Somatic tacit knowledge

  Somatic tacit knowledge relies upon the body or we can say that the body remembers. In Collin example of bicycle riding, such he said: "we do not learn bicycle riding just from being told about it or reading about it, but from demonstration, guided instruction, and personal contact with others who can ride…". This kind of knowledge is permanent. "Once learn is never forget" [2].

  Student of *chutti* class has been practiced at least 3-4 years to complete all the *chutti* characters. They understand the nature and quality of material that they employ. With experience, the movement of hand and body come automatically like an intuition.

- Collective tacit knowledge

  Collective tacit knowledge is the strongest tacit in Collin's view. Collective tacit knowledge relies on the social or the region. Collective tacit knowledge is difficult to articulated due to cultural and society boundary. The knowledge of practice chutti is understood within their community by senses and intuition. However, for the craft practice where the outsider learner spends enough time with the gurus and their community, he/she can gain knowledge as much as the people who are from the same community and cultural background. The more time that outsider practitioner spends with gurus, the more he/she

adapts and adopts self to become a part of their community. Therefore, the hidden collective tacit knowledge reveals when the practitioner immerses self to the practice for the length of time.

VI. RESULT

The result of exploration indicated that while the learning of younger students may be through emulation and repetition, the practitioner's knowledge is gained through self-conscious means of logical thinking and mathematic approximation, gaining the somatic tacit knowledge that the teacher has. Also, collective tacit knowledge is relevant, because during interacting with cultural background and society, it is very different from the practitioner's previous experience, and yet through the immersive experience, the practitioner is able to gain the knowledge and skills not otherwise available to an outsider.

CONCLUSION

Making *chutti* and costumes of *Kathakali*, according to the norm of the institution, intuition is the main cognition and learning process to gain knowledge. Craft practice, which is related to culture as such *chutti* practice, cannot replace by the machine. The value of art form relies on individual practice and the deep understanding of their craftsmanship. Nevertheless, to understand the art and acquire knowledge, as it is tacit, immersive learning is necessary for the learner. As Polanyi pointed out that "the tacit is communicated by hanging around with such a person."

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A Model of Creative Thinking Enhancement for Teachers in Primary Schools under Bangkok Metropolitan Administration

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Abstract— Objectives of this research are 1) to study the creative state of teachers, 2) to develop a model for promoting creativity for teachers, 3) to propose a creative promotion model for primary school teachers. Mixed methods research is used for the design. Quantitative research data has been collected from 205 samples whereas qualitative data has been collected by interviewing 10 key informants and holding focus group discussion held with 9 experts. Results found that the teachers had high opinions on their creativity namely experience in teaching and thinking and practice to learn and try to stimulate knowledge. Teachers can always listen to other people's opinions for a reason, bringing old knowledge to think modifying and apply it to something new interested in teaching in the 21st century, teaching by using google classroom, confident in thinking, making decisions to do things. To achieve the goals set can adapt to suit various situations and environments for teachers with creative features, including being active in thinking. Flexible thinking initiates curiosity, confidence in oneself with 5 activities to promote creativity of teachers offers a model to promote creativity for primary school teachers. There are 4 parts: part 1, the lead part is environment, policy, vision, mission, principle, objective. Part 2, a model consisting of 5 aspects of creativity, namely, thinking fluency, flexible thinking including 5 activities for the development of thinking fluency, activities for developing flexible thinking, activities for developing initiative. Part 3, the application process is decision structure on the principle of success. Part 4, conditions for success, it depends on the context of the primary school.
Index Terms— *Creative Thinking, Enhancement, Bangkok Metropolitan Administration.*

I. INTRODUCTION

Thinking is very beneficial to human life. It Will help how to solve the problem and be able to make an appropriate and rational decisions In today's rapidly advancing news and technology age when there is a high competition. Thinking and promoting thinking of children and young people is very necessary. From kindergarten to advanced level [1], which is consistent with the view that Thinking ability distinguishes humans from animals. Able to solve problems for themselves, Able to think of new inventions, Can create happiness for oneself and protect oneself from natural disasters [2]. Creativity is a process of the human brain, that is important to the human world. Creativity has created many new things, whether it is a theoretical concept. Various technological innovations are all caused by human creativity . Creativity is a very

important thought power if it has been developed and promoted in a systematic manner.

As is mentioned in point 2, there is creativity Curious, love to read, write and research. In addition, students' competency is defined as item 2. The ability to think as a concept. Ability to think critically, Synthetic thinking, Creative thinking, Critical thinking, and systematic thinking can be clearly seen from the provision of basic education. According to the basic education core curriculum, BE 2551 at the elementary level (Secondary School Grade 4-6) is an educational level that focuses on students exploring aptitudes, and their own interests. Promotion of the development of personal personality requires critical thinking skills. Creative thinking and thinking to solve problems requires living skills and skills to use technology as a learning tool Las well as social responsibility. There is a balance of knowledge, ideas,

virtues and pride in order to complete a Thailand. The aforementioned characteristics also are necessary as a basis for a career or further study.

The Office of the Basic Education Commission has established standards and indicators of thinking. The basic education level or internal quality assessment standard is set out in Standard 4 of the School Quality Assurance, which provides students with critical thinking ability, thinking by synthetic, critical, creative pondering and having vision, with a second indicator of creativity Optimistic and imaginative [3]

Nowadays, creativity is an essential skill in life. Creativity will help Allowing us to be successful in life. It will help us learn unhappiness with what we were and try to improve ourselves. Creativity can create a wide variety of things, including art, music, literature, innovation in science and technology, etc., all are the products of creativity. Based on above explanation it can be found that creativity is very important Education management according to the National Education Act B.E. 2542, revised and amended in 2002, which adheres to the learner-centered learning principles. [4]

Life-long continuous learning through self-knowledge encourages critical thinking and creativity under Section 7, which addresses the learning process. That it aims to instill correct awareness about politics and government in a democratic system with the King as Head of State having a pride in being Thai including promotion of religion, arts, and culture of the nation, sports, local wisdom; Thai wisdom and universal knowledge As well as conserve natural resources and environment, having the ability to make a career Self-reliance, being creative, a constant pursuit of self-learning and learning.[5]

National Education Management Plan 2017-2036 In strategy 3, the development of potential of people of all ages and building a learning society. Its goal is to include students' basic skills and characteristics of Thai citizens and 21st century essential skills and traits, with key indicators such as learner qualifications and skills. Learn to gain quality and standards educational institutions / early childhood development centers organize activities in line with the early childhood curriculum and the children's competencies linked to the quality standards of early childhood in ASEAN Educational institutions at the basic education level that provide curriculum-based education aimed at developing learners with additional characteristics and learning skills in the 21st century. and educational institutions at the vocational and higher education level that provide curriculum-based education aimed at developing people to learn to increase competencies etc. The National

Education Management Plan, promoting creativity for children and youth in educational establishments is of great importance to the development of Thailand in the Thailand 4.0 Age.[6]

From the background and importance of the problem the researcher is therefore interested in studying a model for promoting creativity for elementary school teachers under the Bangkok Metropolitan Administration in order to serve as a guideline for promoting creativity for teachers in educational institutions in order to apply such creativity to the body of knowledge for the development of teaching, self-development, social development, national development and also continue to prosper and sustain.

II. RESEARCH OBJECTIVES

1. To study the creative state of elementary school teachers under Bangkok Metropolitan Administration.

2. To develop a model for promoting creativity for primary school teachers under Bangkok Metropolitan Administration.

3. To propose a model for promoting creativity for primary school teachers under Bangkok Metropolitan Administration.

III. RESEARCH METHODS

Step 1: To study the creative state of primary school teachers by 3 steps: 1) to study documents on the creative state of primary school teachers, from the data source: books, articles, textbooks, research work, website, tools: study form, document analysis: content analysis, content analysis 2) to give questionnaires about the creative state of primary school teachers, from 205 primary school teachers, and 3) to interview about the creative state of teachers with 10 primary school administrators.

The step2: To develop a creative promotion model for primary school teachers administration by 2 steps: 1) Drafting a model to promote creativity for primary school teachers: Results from Objective 1 Tool study Document Data Analysis: Content Analysis and 2) Developing by discussion group Source: Experts / Scholars / School Directors By selecting a specific type of criteria for the selection of 10 persons.

Step 3 :To propose a creative promotion model for primary school teachers such as revising and presenting together with the advisor / advisors. Data analysis: content analysis, Outcome: Creativity model for primary school teachers, Complete affiliation of Bangkok Metropolitan Administration.

V. RESEARCH FINDINGS.

1. The study results of the creative state of primary school teachers under Bangkok Metropolitan Administration. The research results are found that overall, the teachers 'opinions on the teachers' creativity are at a high level, ranked in descending order, Self-confidence The curious side thinking, fluent Initiative and flexible thinking, as shown in Table 1 as follows,

Table 1 shows the mean and the standard deviation of the respondents based on their opinions about the creative state of primary school teachers in all 5 aspects

	Variable studied	$\overline{x}$	S.D	level
1.	Thinking as fluent	3.74	0.779	High
2.	Thinking Flexibility	3.68	0.873	High
3.	Initiative aspect	3.71	0.937	High
4.	Curiosity	3.82	0.741	High
5.	Self-confidence	3.86	0.759	High
	total	3.76	0.605	High

2. Flexible thinking, there are 3 rankings are always willing to listen to other people's opinions for a reason. There is an idea of details to decorate or expand the main idea to get a more complete meaning and have the ability to think and solve immediate problems in a timely manner. The one with the least comments is the idea of flexibility in modifications, and able to think of various kinds able to adapt from one thing to many things well and interview results. It is the ability to modify knowledge or experience for many benefits which are useful for problem solving. The development of flexible thinking through the use of a continuous thinking development program. The process of organizing ideas and content producing ideas in various forms transforming things to develop ideas

3. Initiative aspect arranged from 3 ranks, including using old knowledge to think and modify and apply it to something new, like to learn to create new things all the time, and having the courage to think and try to test their thoughts The one with the least opinions is creative, and finds a way to produce results, and the results of the interview are to be independent, i.e. Put yourself outside the bounds, rules, frameworks, and shields. Think more because it will enhance the experience. Rely on concentration and mindfulness, free from prejudice, social values, and assessment. Can fight other people's blemishes

not giving time to rush thoughts too much, and not looking for profit from ideas.

4. Curiosity In order of 4 ranks: enthusiastic at Will always ask about new things, Want to meet with enthusiasm wanting to learn everything, and sensitive to what he saw and expresses with fondness for experimentation, study, research, questioning all the time. The least comment on was there was a surprising amount of doubt on the merits. And the results of the interviews were drawn from interests such as the 21st century teaching, teaching by using google classrooms, based on interest. Learning in the subject continuous practice of interest which will be of great benefit to the development of teachers' creative thinking processes.

5. Self-confidence, having three ranks: Confident in thinking of decisions to take action. To achieve the goals set can adapt. It is suitable for various situations and environments.

2. Develop a model for promoting creativity for primary school teachers. Bangkok Metropolitan Administration consists of 4 parts as follows,

Part 1: The leading part consists of the environment (Environment), i.e. general conditions affecting the adoption of the model, which must be favorable, such as policy, vision, mission, etc. The difference between the characteristics of the administrators and teachers. Principle is the basic concept. And conditions of use conditions for successful implementation of the pattern and precautions to prevent problems that may arise. This is a practice to achieve success in operating 10 Objectives (Object), namely the goal of developing, a model to solve a particular problem. or to enable the operation to produce good results either. There are 7 benefits of the importance of creativity.

Part 2: The model is a feature of 2-dimensional creativity. Flexible thinking Initiative Psychological and personality dimensions consist of curiosity. Self confidence Management Process: methods of operations, activities, and others that must be performed in order to achieve the objectives of the model, including development and performance stages. And 5-step performance evaluation process; and 5 activities for promoting creativity of teachers: 1) Activity for developing thinking fluency, "analyzing, teaching synthesis", 2) activity for developing flexible thinking "creativity. 3) Activity for developing the initiative "Invention in the household" 4) Activity for developing curiosity "Good in the community" 5) Activities for developing self-confidence. "Own leadership"

Part 3 : steps to apply are 1) Structure (Structure) is the mutual link between various elements. That will help

make the model more effective, namely decentralization, administration and management of educational obligations. School administration in 4 departments, which are (1) academic administration comprising 17 duties. (2) Budget management. comprising 22 duties (3) personnel management. comprising 20 duties (4) management, general administration comprising 22 duties. 2) Decision Making refers to the process of choosing one of the many options considered, or well assessed that I a way to achieve the objectives and the goal of the pattern which has decision criteria, which is a fundamental factor that makes elementary school under Bangkok Metropolitan Administration successfully implemented a creative promotion model for primary school teachers, under the Bangkok Metropolitan Administration to practice 4 areas 3) Evaluation guidelines ,formulation of guidelines and tools for model evaluation for the benefit of checking how much the format functions as designed.

Part 4 : Success Conditions it depends on the context of the elementary school, under the Bangkok Metropolitan Administration, such as, vision, policy of primary school administrators.

3. Propose a model to promote creativity for primary school teachers, under Bangkok Metropolitan Administration, including as follows,

Part 1 : Preface 1) Environment is the general condition affecting the adoption of the model, such as policy, vision, mission, etc.differences between the characteristics of the administrators and teachers 2) Principle (concept) Basis and conditions of use of conditions for successful implementation of the pattern and the precautions to prevent problems that may arise, namely, the principles for success in performing work depending on individual character and attitude .

Part 2 : Model 1) Characteristics of creativity are 1) thinking fluency. having fluency in expression, quickly assembling words together to get the desired sentence, able to trace messages using fluent words, able to quickly figure out, and finding ways to improve work that are the best and most suitable gain experience in teaching and practice 2) Flexible thinking to ; thinking freely freedom, to think outside the box, can think for adapting from one thing to many things for many benefits.3) initiative. Bringing old knowledge to think modifying and apply it to something new.The practice of interest which can be very helpful. 5) self-confidence, express confident in thinking of decisions to take action. To achieve the goals set can be adapted.

Part 3 : Steps to apply 1) Structure (Structure) is the mutual link between various elements, that will help to make the model more effective, namely decentralization,

administration and management of educational obligations. School administration in 4 departments, which are 1) academic administration comprising 17 duties. 2) Budget management comprising 22 duties 3) personnel management comprising 20 duties 4) management, general administration comprising 22 duties.

Part 4 : Success Conditions it depends on the context of the elementary school, under the Bangkok Metropolitan Administration, for example, vision, policy of primary school administrators Under Bangkok Metropolitan Administration (Table 1),as shown below :
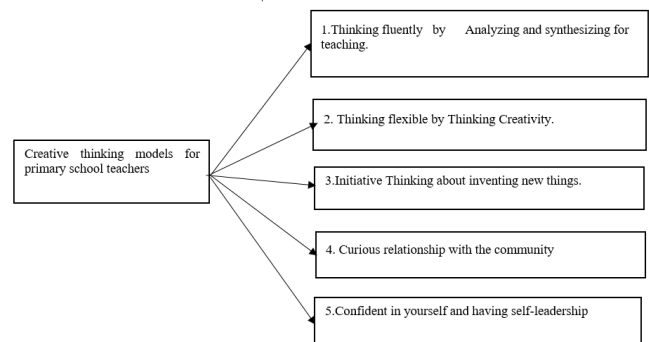
Table 1: Creative thinking models for primary school teachers.

VI. **Discussion**

The researcher found important points to be discussed about models for promoting creativity for primary school teachers, under Bangkok Metropolitan Administration as follows

1. The study results of the creative state of primary school teachers under Bangkok Metropolitan Administration are found that Creative state of elementary school teachers under the Bangkok Metropolitan Administration is of conclusion, the teachers opinions on the teachers' creativity is at a high level, ranked in descending order. Self-confidence The curious side Thinking, fluent Initiative and flexible thinking included as indicated.

1) thinking fluency makes fluency in expression gathering experience in teaching and thinking and practice to learn and try to stimulate knowledge. By flexible thinking aspect, you can always listen to other people's opinions for a reason. Continuous thinking development activity programs Initiative Bringing old knowledge to think modifying and apply it to something new, for instance releasing yourself, taking oneself outside the bounds, rules, frames and shields of curiosity. Enthusiastic will always ask about new things with an interest in such matters as interested in teaching in the 21st century such as

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Self-confidence, express confident in thinking of decisions to take action. To achieve the goals set up can adapt suitable for various situations and environments ready to take risks .Dare to do something better than admit one's mistakes .Thinking about things that are important to us and the goals we wanted to achieve.

In addition, the ability to think creatively and independently is associated with a dislike of teachers. Sometimes there is a feeling of despair for the teacher and students with creative thinking ability too. Higher self-esteem will have confidence in academic ability in all subjects, and most has a greater commitment to higher education planning than students who have the ability to Self creativity, and finally, students with a level of creative thinking ability. Higher education enters the school after academic studies and after completing group activities.Anything related to research and creative practice will be discussed further. [7]

2. Development model for promoting creativity for primary school teachers under Bangkok Metropolitan Administration, The development of the model consists of 4 parts:

Part 1: consists of the environment ,general conditions affecting the adoption of the model which is favorable, such as policy, vision, mission, etc. The difference between the characteristics of the management and Principle: Basic concepts and conditions of application. Conditions for successful implementation of the pattern and precautions to prevent problems that may arise. This is a practice to achieve success in operating 10 objectives , namely the goal of developing a model to solve a particular problem or to enable the operation to produce good results either. There are 7 items for benefits of the importance of creativity.

Part 2: The model is a feature of 2-dimensional creativity. Flexible thinking Initiative Psychological and personality dimensions consist of curiosity. Self confidence Management Process: methods of operations, activities, and others that must be performed in order to achieve the objectives of the model, including development and performance stages, and a 5-step performance evaluation process including 5 activities to promote creativity of teachers.

Part 3: steps of implementation are 1) Structure (Structure), namely the mutual link between various elements. Which will help make the model more effective, namely decentralization, administration and management of educational obligations. School administration in 4 departments, which are 1) academic administration comprising 17 duties. 2) Budget management. comprising

22 duties 3) personnel management comprising 20 duties. 4) Administration, general administration comprising 22 duties. Anyone who hopes for success must complete oneself by the so-called power, which is classified in 4: contentment, love for it, persistence, persistence in it, mindfulness, attention to it, observance of reason.

Part 4 : conditions for success it depends on the context of the primary school , for example, vision, policy of primary school administrators. The above research results are consistent with Poonyarat Sirinupong's research, studying the creation of multimedia games for the development of creativity for early childhood. Early childhood cognitive design where activities within the game encourage children to think. Expresses in a fun way of creativity the efficiency passed the 90/90 standard, which is 98% of all players' average scores on the post-game test and 90% of the players passed the learning objective. [8]

3. Propose a model to promote creativity for primary school teachers under Bangkok Metropolitan Administration, as follows

Part 1:Preface 1) Environment (Environment) is the general condition affecting the adoption of the model, such as policy, vision, mission, etc. Differences between the characteristics of the administrators and teachers 2) Principle (concept) Basis and conditions of use of Conditions for successful implementation of the pattern and the precautions to prevent problems that may arise, namely, the principles for success in performing work depending on individual character and attitude. Those who will be successful in doing their job should start with changing their attitude about themselves. 3) Objectives: The goal of developing a model to solve a particular problem, or to enable the operation to produce good results with the benefit of the importance of creativity.

Part 2 :steps to apply 1) Structure (Structure) is the mutual link between various elements, Which will help make the model more effective, namely decentralization, administration and management of educational obligations. School administration in 4 departments, which are 1) academic administration comprising 17 duties. 2) Budget management. comprising 22 duties 3) personnel management. comprising 20 duties 4) management, general administration comprising 22 duties as follows, 1) Decision Making means the process of choosing one of the many options considered, or well assessed that as a way to achieve the objectives and the goal of the models. 2) Evaluation guidelines formulation of guidelines and tools for model evaluation for the benefit of checking how much the format functions as designed. The principle of Buddhism is the principle of power 4, namely 1.

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contentment, love, and love for that. 2. persistence in that thing, in the creativity of the work to accomplish.

Par 3: Success conditions, it depends on the context of the elementary school for example, vision and management .The findings of the above research indicated that the model for promoting creativity for teachers requires activities and encouragement of teachers' creativity. Project to develop creativity for teachers to be able to develop and apply what has been trained. Used in teaching and learning to primary school children by the results of this research are consistent with the research of Lung infection (2007). The development of creativity of students Grade 1, using art learning activities, target groups used as students, found that students studying with a plan for learning about the arts to develop creativity after studying higher than before studying effectively. The significance at the .01 level and also consistent with Somporn Limcharoen (2009). "Development of supplementary curriculum to promote creativity for second graders" [9]

The research results are found that getting elements of creativity that encourage students. This creative idea consists of two dimensions: 1) dimensions of thinking, including thinking fluency, mindfulness, flexibility and initiative and 2) dimensions of mind and character, aging, craving and self-confidence. The results indicated that the experimental group had a higher average score of creativity than the group of students. The control is statistically significant at 0.05 level. The supplementary course is at a very good level. The supplementary curriculum evaluation is found to be effective according to the specified criteria. After the experiment, the researcher improved the timing and language teaching plans in explanation in some lesson plans to make it more appropriate. Then prepared a supplementary course to promote complete creativity .This is the innovation of teachers' creativity to improve teaching and learning. [10]

VII. CONCLUSION

A model for promoting creativity for elementary school teachers under Bangkok Metropolitan Administration consists of 4 parts: the first part is the environment, policy, vision, mission, principle, objective, part 2 : the model is the five aspects of creativity, namely, the fluent thinking. Flexible thinking aspect Initiative, Part 3 : The curious side Self-confidence Management processes and 4: Activities to promote creativity of teachers: Activity for developing thinking fluency, "Analyzing, Synthesis, Teaching" Activity for developing flexible thinking "Thinking out of the box", Activity for developing the initiative "Basic household invention", Activity for

developing curiosity. I would like to see "good things in the community" activities for developing self-confidence, "own leadership". By relying on the principle of success, which is the base of success; It depends on the context of the elementary school under the Bangkok Metropolitan Administration, for example, vision, policy of primary school administrators under Bangkok Metropolitan Administration.

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An Innovative Prototype Model of Management to Confront with Coronavirus Disease 2019 (COVID-19): A Case Study of Mahachulalongkornrajavidyalaya University

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Abstract—The purposes of this research article were 1) to analyze crises situation and measures to prevent the epidemic of Coronavirus 2019 (COVID-19), 2) to conduct lessons learned on management of the Coronavirus Outbreak situation 2019 (COVID-19) of Mahachulalongkornrajavidyalaya University (MCU), and 3) to propose an innovative prototype model of management to confront with Coronavirus epidemic situation (COVID-19) of MCU. Action research was conducted as it was a research method that suitable for urgent situations where action must be taken to resolve problems promptly. Target groups were personnel and students of MCU who work or live in the area of MCU. The research tools were interview question guidelines, issues in group interviews, and field record. Qualitative data analysis using content analysis and analytic in duction was conducted. Results indicated that 1) the outbreak of the coronavirus 2019 affects the university administration that was unable to operate normally. For disease prevention measures, fivemeasures were established consisted of 1) measures for the performance of university personnel; 2) measures for educational management; 3) measures for staff and students living in university; 4) measures for public communication; and 5) a measure of internal management within the university area. All five measures will be carried out with the university's center for the control and prevention of the epidemic of COVID 19. 2) The sixth prototype was being conducted from lessons learned on management of the coronavirus epidemic situation (COVID-19) of MCU. 3) An innovative prototype model of Seven ways of New Normal Confronting with COVID-19, there are 7 ways consisted of 1) method of new normal life focusing on health care, 2) method of new normal working using online communication, 3) method of new normal teaching and instruction using online blended learning, 4) method of new normal research and academic management focusing on online working, 5) method of Dhamma public communication in new normal focusing on social distancing, 6) method of sharing expression in new normal using sharing pantries, and 7) method of coexistence in university following Buddhist New Normal.

Index Terms— Innovative Prototype Model, Coronavirus Disease 2019, Mahachulalongkornrajavidyalaya University

I. INTRODUCTION

From the situation of the coronavirus outbreak 2019 has spread all over the world with information on 31 December 2019 in Wuhan People's Republic of China Outbreaks of atypical pneumonia caused by Coronavirus 2019 (2019-nCoV) that have spread from other Chinese cities have been reported and have spread worldwide. As it appears in the current situation subsequently, data as of March 28, 2010 found that the number of infected worldwide was 597,267 people and the United States had the highest number of cases at 104,126, followed by Italy, which had more cases than China. Later it was Spain, Germany, France, Iran, England and Switzerland. This shows that the effects of the epidemic in Europe are becoming more widespread. For Thailand according to Dr. Taweesil Wissanuyothin, a spokesman for the Coronavirus Outbreak Management Center 2019, reports of the COVID-19 epidemic situation in Thailand found that at the end of the month there were the number of people infected inMarch 2020 has continued to rise. (Matichon Online: 29 March 2020) and on March 30, 2010, there were 136 new cases of infection with the cumulative total 1,524 people, according to information that the situation of the virus outbreak still does not stop and continued to increase the number of patient statistics. From the phenomenon of each country as daily news, there is research that created a body of knowledge about methods to measure performance. In preventing the spread of the 2019 coronavirus, it is useful to monitor and take lessons learned from the experience of different areas.

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This is as evidenced in the Shan-Lu Liu and Linda Saif (2020)[1]study on Emerging Viruses without Borders: The Wuhan Coronavirus, reflecting the findings of the study. The new coronavirus in Wuhan, China, claimed at least two lives as of January 17, 2010 and infected hundreds. The situation has attracted international attention, including the virology community. Rapid publicity of new virus genome sequences by Chinese virologists, but it also believes that increased transparency in disease reporting and sharing of information with international colleagues is critical for controlling the world's spread of the virus.

A study in Peng Shao's research (2020) [2] on "Impact of city and residential unit lockdowns on prevention and control of COVID-19)" found that managed studies yielding results on the implementation of measures to closing cities leads to higher mortality in these cities due to reduced mobility. Moreover, the use of closed-town systems, along with the addition of hospital beds, improved treatment and reduced mortality, strict operations and premature closure of residential apartments. This makes it more effective in controlling the spread of disease and reducing the number of hospital beds. In general, measures should be taken to shut down cities and homes to prevent the spread of COVID-19. In addition, medical resources should be increased in closed cities. These measures will help reduce the spread of the virus to other cities and provide appropriate treatment for the sick in the city under that city closure. It also included in the work of the European Center for Disease Prevention and Control (2020) Novel coronavirus disease 2019 (COVID-19) pandemic: increased transmission in the EU / EEA and the UK [3].

As well as in research by Shulin Liu, Zhi-gang Wang (Nankai University), Hai-Yan Xie, An-An Liu (2020)[4]on Single-Virus Tracking: From Imaging Methodologies to Virological Applications, and work by Hui Luo, Qiao. -ling Tang, Ya-xi Shang, Jian-Ping Liu (2020)[5]in Can Chinese Medicine Be Used for Prevention of Corona Virus Disease 2019 (COVID-19)？ A Review of Historical Classics, Research Evidence and Current Prevention Programs pictured include this research that reflects the state of the results of surveillance studies on viral distribution in China, Italy and the United States including acquiring knowledge as a preventive measure. Modeling is the knowledge of virus fragmentation and prevention measures. All of which are real snapshots of the world community today.

At the national level, the Prime Minister has announced a declaration of state of emergency according to the Royal Decree on Public Administration in Emergency Situations, 2015 as published in the Government Gazette, Volume 33, Part 24A, dated March 25, 2020, referring to the Cabinet's approval. At the meeting on 24 March 2020 and with the advice of administrators and academics of medicine and public health under the authority under Section 5 of the Royal Decree of Public Administration in Emergency Situation B.E. 2554 announces the state of emergency in all areas throughout the Kingdom. From March 26, 2020 to April 30, 2020, the announcement of the state of emergency is in accordance with the laws that have been established since B.E.2558, since the situation has now spread. The outbreak of Coronavirus 2019 (COVID-19), a newly emerging pandemic, has spread rapidly around the world and Thailand has been affected as well.

At this time, there is no effective vaccine and treatment for this. Therefore, the government has taken measures to prevent, block, delay and build people's awareness and understanding on a daily basis. According to the progress of the situation information and the medical advice of all specialists by taking into account the impact on people in terms of social and living, living economy, state resources, public health and the prevention of excessive panic. It is extremely dangerous because it will affect the efficiency of the medical services and the use of public health resources of the country.

All parties agreed that the situation should be raised to the maximum enforcement of measures, so that the state can bring more measures to take effect from the original as for which measures to choose first. There will be further announcements and requirements to be announced, but initially it was necessary to declare a state of emergency first which has been announced now and the result of the announcement is that the government will have a channel under the law to control or manage any situation, for example, some powers of the Minister will be transferred. According to some laws, the Prime Minister is necessary and temporarily for speed and integration. A requirement will be issued certain prohibitions or practices such as prohibiting entering and exiting certain places prohibit or restrict entry and exit to the Kingdom and the movement of large numbers of people across the area. Control of the use of vehicles, traffic routes, control of goods and medical supplies. These measures even in accordance with the law on public administration in emergency situations and even if the situation from the numbers Number of people infected and death in the country.

The government has asked people to trust in the country's public health system and please take care of your health himself because of having no disease is truly a great fortune. At the same time, please cooperate with the authorities in order to strictly adhere to medical measures and advice as well as receive information Published through official channels such as radio, television, print media with a reliable reference source. It is not a rumor or news that has no known sources. If in doubt, ask the Ministry of Public Health, or, the COVID-19 epidemic situation management center (COVID-19), staying at home according to the saying "stay at home, stop infecting for the nation". A lot taking

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preventive measures for oneself and showing social responsibility such as using masks, hand sanitizer, not touching or receiving the infection with saliva spray, keeping social distancing from others, visiting a doctor in case of suspicion. It is accepted all over the world that we can reduce our risks as best as we can to protect ourselves, our relatives and the society.

As a result of the above measures, other mechanisms spread throughout the country, including Mahachulalongkornrajavidyalaya University has set guidelines management guidelines in the current situation, the Most Venerable Prof. Dr. Phra Rajapariyatkavi, on the Rector met the MCU community, on March 26, 2020, which is significant due to the current situation of the coronavirus epidemic. There was a meeting with the Vice-retors of the Central Campus, the Dean and the Director of the Central College of Education established guidelines to prevent the spread of COVID-19 on March 18, 2020. The main seven main issues are (1) measures for student administration, education, teaching, evaluation, evaluation, both central and regional. Educational management services, teaching, evaluation, educational evaluation by using the online system mainly. The central exam course has changed the schedule of examinations from the original using the format of an exam by the online exam method, and there is a schedule for the exam. More information can be found at the Registration and Evaluation Office; (2) the work of personnel is an administration to support education both the central and regional parts are classified as (a) the type of work that can work at home by working online, (b) the one that must work at the office, the administers should consider and establish a time-lapse working model for the office attendant to take turns to adhere to the social distance process, which is the social distance in accordance with the government's policy, (3) building management to the central and region. There is a spray of disinfectant fluid which would like the senior management in the region, even as the monastic college campus, to study on finding disinfectant to inject sterilization. Set and limit access to the university area to have a screening point, fever measure, take care of orderliness, one-way entry to supervise and tighten up. (4) The organization of various project activities of the university refrain from activities that involve large groups of people, no summer ordination and training projects, no other activities normally performed by the university year, so that we don't have to come together in many groups or operated in an online format. (5) Central or regional nutrition have students living in the university area who cannot travel back to their own countries. The university therefore has to take care of nutrition which has been managed either me in a private container, social distancing and using alcohol gel. (6) Establishing a center for the control and prevention of the spread of COVID-19 in Central Wang Noi has set up a separate center to prevent the spread of COVID-19. Because it is a large center and there are a lot of people going in and out each day. Therefore, a center for the control and prevention of the epidemic of COVID-19 has been set up, a dedicated office has a 24-hour center staff. Information is gathered from both inside and outside, screening inspection for senior management. In the region, vice-rector for regional campus Director of Sangha College has studied the operational duties of the location supervision center. In the center to consider actions in the responsible region to prevent the spread of the COVID-19.(7)Forgraduation ceremony, the graduation ceremony has been postponed until it is in the normal state. A proposal for a degree approval is presented to the Dean, President and Chairman of the University Council Signing a diploma, and other evidence showing that the student has completed a Bachelor Degree, Master degree, and Doctoral Degree. It will be according to the calendar that has been made the degree and qualifications in all respects have the right to use the degree as desired in all respects.

In addition, the Center for the Control and Prevention of the Epidemic of COVID-19, Mahachulalongkorn rajavidyalaya Central University, is presided over by Associate Professor Dr. Phra Theppavaramethi. Therefore, there should be research to study and conduct the lessons learned results of that operation by studying an innovative prototype model of management to confront with Coronavirus Disease 2019 (COVID-19): A case study of Mahachulalongkornrajavidyalaya University in order to study the guidelines or follow up the mechanism for implementing the university's guidelines and measures, both in terms of situations measures established and implemented by the university as well as to conduct the body of knowledge on guidelines and measures to be used as a knowledge from lessons learned for prevention, and to put in place and monitor measures for further action.

II. RESEARCH OBJECTIVES

The purposes of this research article were 1) to analyze crises situation and measures to prevent the epidemic of Coronavirus 2019 (COVID-19) , 2) to conduct lessons learnedon management of the Coronavirus Outbreak situation 2019 (COVID-19) of Mahachulalongkornrajavidyalaya University (MCU), and 3) to propose an innovative prototype model of management to confront with Coronavirus epidemic situation (COVID-19) of MCU.

III. CONCEPTUAL FRAMEWORK

An Innovative Prototype Model of Management to Confront with Coronavirus Disease 2019 (COVID-19): A Case Study of Mahachulalongkornrajavidyalaya University

was an urgent research that conducted during COVID-19 pandemic. Conceptual framework was set as in Fig.1.
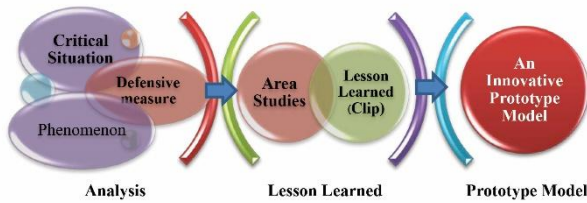
Fig.1 Conceptual Framework

IV. RESEARCH METHODS

The research design for this research was based on the Action Research design, as it is a research method suitable for urgent situations where action must be taken to resolve problems promptly. The research process is divided into 4 important steps: Step 1 Planning (Plan), Step 2 Action (Act), Step 3 Observe, and Step 4 Reflect the results (Reflect) or called PAOR process. For this research, the Action Research Design Model for Lesson learned was designed for lesson learned as follows.
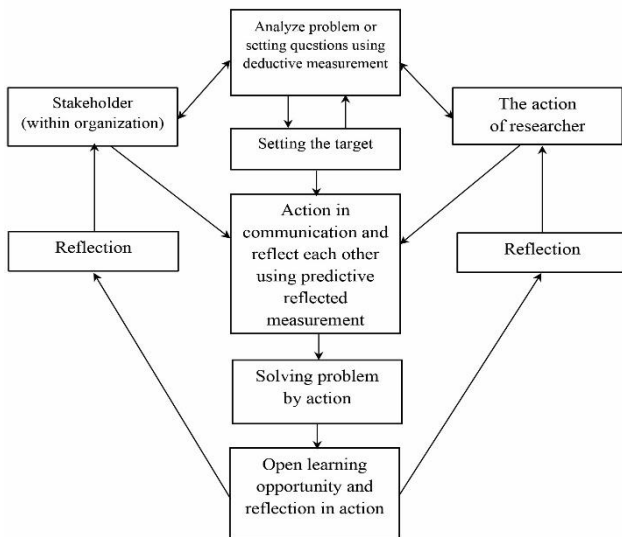
Fig.2 Action Research Design Model for Lesson learned
Sources: Adjusted from Greenwood and Levin (2007) [6]

This research has set a research process by dividing the study into 3 phases: Phase 1, Documentation study, and Field Study, Phase 2, Participatory Action Research (PAR)

and Phase 3 Validate the innovative prototype model from the group who involved in the Management of the Coronavirus Outbreak Situation 2019 (COVID-19) and was shown in Fig.3 as follows.
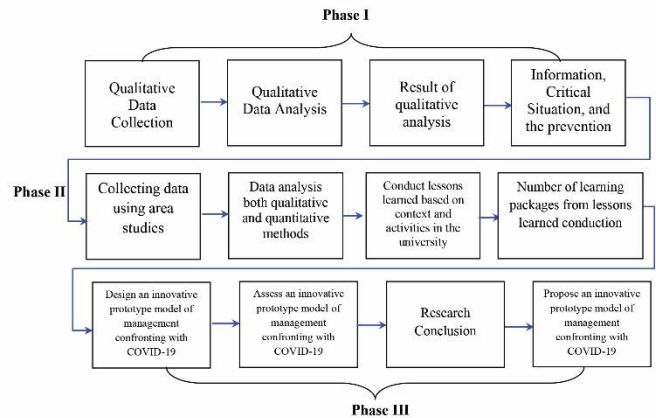
Fig. 3 Research procedures for innovative models confronting with COVID-19

The findings of this study are drawn from the lessons learned from the urgent situations, which are urgently conducted and the results are adapted in a timely manner during the epidemic situation of Coronavirus 2019 (COVID-19).

V. RESEARCH RESULTS

Research results were divided into 3 areas according to the research objectives as follows:

1) Crisis analysis results, the situation and measures to prevent the spread of the coronavirus 2019 (COVID-19) found that the outbreak of the coronavirus 2019 affects the university administration that was unable to operate normally. This pathogen has never been seen before in humans, it causes respiratory illness in humans and can be transmitted from person to person. Common symptoms include respiratory symptoms, fever, cough, shortness of breath, difficulty breathing in very severe cases. It can lead to complications such as pneumonia, kidney failure, or possibly death. Palliative treatment is currently used to alleviate various ailments as there is no vaccine yet. For disease prevention measures of Mahachulalongkornrajavidyalaya University, 5 measures were established, which are 1) measures for the performance of university personnel to enable personnel from all areas of work to work from home and organize an agenda for changing the day to work for personnel; 2) measures for educational management, the university has set up a study in online teaching and assessment test for all courses and all levels of educational management; 3) measures for staff and students living in Mahachulalongkornrajavidyalaya University, the university issued intensive supervision

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measures, 4) measures for public communication as a university institute and a Sangha university, and 5) a measure of internal management within the Mahachulalongkornrajavidyalaya University area. All five measures will be carried out with the university's center for the control and prevention of the epidemic of COVID 19.

2) The results of conducting lessons learned on management of the coronavirus epidemic situation (COVID-19) of Mahachulalongkornrajavidyalaya University found that the university has implemented a good practice (Best Practice). The six areas consisted of the first prototype was health care prototype for university students and staff; the second prototype was model of teaching and learning with Multi-Online Communication Prototype; the third prototype was a model for research and academic management online using online service prototype; the fourth prototype was sharing prototype: the fifth prototype was a model of public communication, Dharma for creating morale to be mindful and patient during difficult situations as Dhamma talk therapy prototype; and the sixth prototype was model of COVID-19 management with the establishment of Center for Control and Prevention of COVID 19 as COVID-19 Management Prototype.Model of Best Practices as the part of the main prototype model was developed and was shown as in Fig.4.
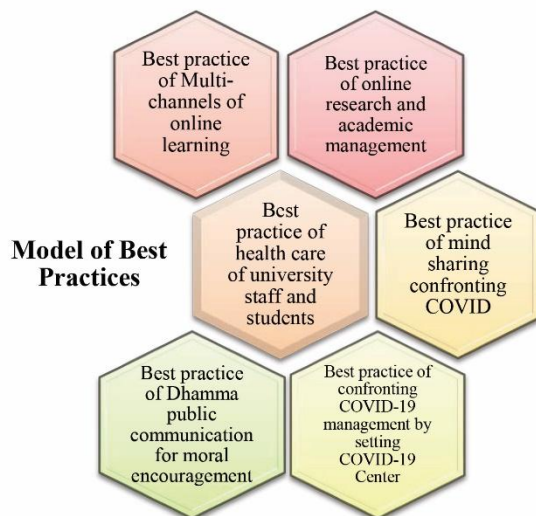
Fig.4 Model of Best Practices

3) An innovative prototype model of management to confront with Coronavirus Disease 2019 (COVID-19): A case study of Mahachulalongkornrajavidyalaya University is a model of proposing the phenomenon occurring in Mahachulalongkornrajavidyalaya University according to the new normal life. There are 7 adaptations that include 1) method of new normal life focusing on health care, 2)

method of new normal working using online communication, 3) method of new normal teaching and instruction using online blended learning, 4) method of new normal research and academic management focusing on online working, 5) method of Dhamma public communication in new normal focusing on social distancing, 6) method of sharing expression in new normal using sharing pantries, and 7) method of coexistence in university following Buddhist new normal. Model of Seven ways of New Normal Confronting with COVID-19 was shown in Fig.5.
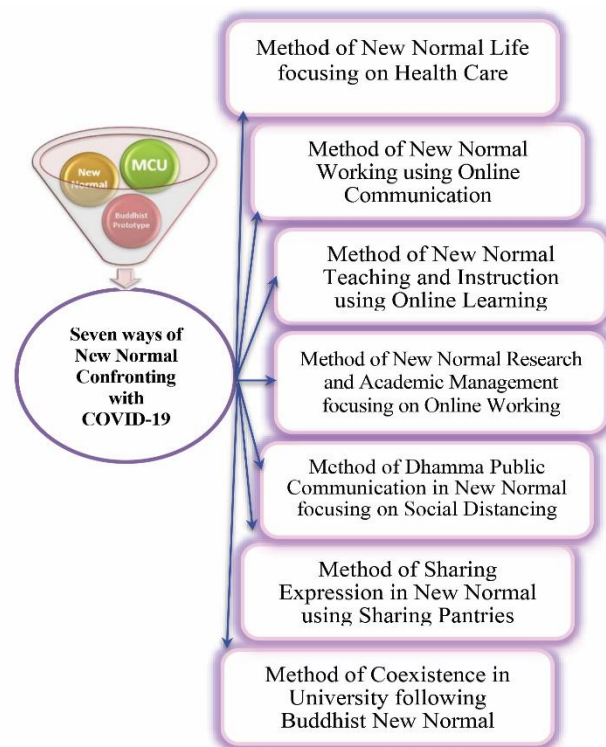
Fig. 5 Seven ways of New Normal Confronting with COVID-19

V. RESEARCH REFLECTION

There are many studies on the situation of the global COVID outbreak including Thailand was affected by the situation cause education about the concept of many measures as evidenced in research and studies, such as the coronavirus (COVID-19) outbreak in Thailand (Surachai Chokchanchitchai, 2020), public opinion on the prevention and treatment of COVID-19. According to the principle of the four Noble truth (Phrakhru Sripariyatwithan (Phramaha Man Kupaatarangsi / Thongwijit), 2020) [7] Cloud Meeting-Telemedicine with medical personnel in the COVID-19 era (Teeraphat Adulyatham, 2020) [8], Buddhist methods for self-care in the COVID-19 situation (Naphaphat Ngambussabongsopin, 2020) [9].

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The research or results of the study as a whole will focus on living in normal situations, preventive and corrective measures to the problems that arise under the concept seen as a problem (Dukkha) that needs to be studied for the cause. Possibility causes that come (Samudaya) and lead to seeking measures or guidelines to lead to a solution or the cause of the COVID that occurs (Magga) until it hopes to work, or need the results of measures (Nirodha) that will lead to the correction and prevention of the cause that has happened as it will lead to the systematic development and the systematic correction as well.

From the presentation of research reflections on "An innovative prototype model of management confronting with Coronavirus Epidemic Situation 2019 (COVID-19): A Case Study of Mahachulalongkornrajavidyalaya University", it reflects what has been received from lessons learned from local management under the epidemic situation of COVID-19. It is a reflection of the research results that are being carried out urgently in order to immediately apply the findings, to design an action research to find answers to an immediate event where the lesson results were presented as a prototype model for the novel coronavirus outbreak.

For the body of knowledge from research indicated that An innovative prototype model of management to confront with Coronavirus Disease 2019 (COVID-19): A case study of Mahachulalongkornrajavidyalaya University was a lessons learned on management of the fight against the coronavirus epidemic situation 2019, a phenomenon that occurred in Mahachulalongkornrajavidyalaya University according to the New Normal way, resulting in a model of management adaptation confronting with the epidemic situation of the Coronavirus 2019 (COVID-19), known as "Seven ways of New Normal Confronting with COVID-19", which is an innovative prototype model from this research [10], and can be shown as below figure.

An Innovative Prototype Model of "Seven ways of New Normal Confronting with COVID-19" Mahachulalongkornrajavidyalaya University Assoc. Prof. Dr. Phra Theppavaramethi (2020)
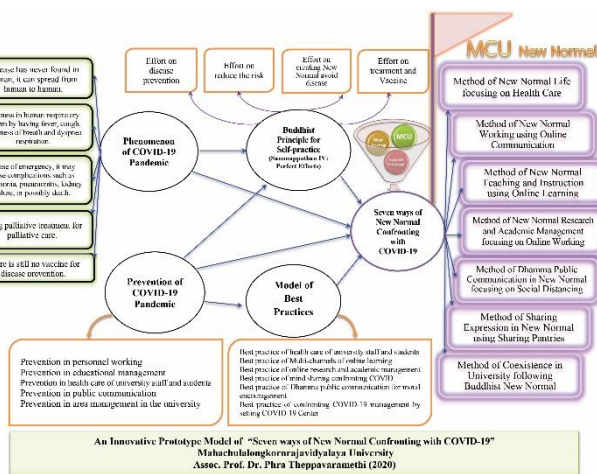
Fig. 6 MCU Innovative Prototype Model Confronting with COVID-19

VI. RECOMMENDATIONS

A. Recommendations for applying research results

1) The results of research on the situation of the coronavirus outbreak 2019 (COVID-19) found that there is no vaccine yet, so personnel and students should follow the measures set by the university including acting according to the national guidelines regarding the declaration of emergency situations in accordance with the Emergency Decree on Public Administration in Emergency Situations for the benefit of taking care of the health of themselves and those around them in the future.

2) From a lessons learned, it found that the university has implemented best practice of a model for personnel and students of Mahachulalongkornrajavidyalaya University during the coronavirus outbreak situation 2019, there should be supervision to adhere to continually in order to prevent the spread of the epidemic from occurring for both university personnel and students including the area of the university.

3) Result of innovative prototype models "Seven ways of New Normal Confronting with COVID-19" ofMahachulalongkornrajavidyalaya University. This showed a concrete model of practice under management during the COVID-19 epidemic situation. This innovative prototype model should be published to all university departments, including campuses, monastic colleges, and resource unit across the country to guide the implementation of the organization's context, respectively.

B. Recommendations for the next research

1) The findings obtained from this research are derived from Action Research that designed research to solve problems during urgent situations. The obtained research results can be used to design participatory action research (PAR) by using a research model based on the new normal by operating with online social distance.

2) A quantitative research in the nature of a causal relationship model should be designed to examine the innovative model of the coronavirus epidemic management (COVID-19) model of Mahachulalongkornrajavidyalaya University by setting educational areas across the country in order to obtain empirical information including the determination of Buddhist variables in the model to study the influence of variables on the effectiveness of COVID-19 management.

3) Design-Based Research (DBR) should be conducted to develop the continuity of an innovative prototype model for management of the coronavirus epidemic situation 2019 (COVID-19) of Mahachulalongkornrajavidyalaya University obtained from this research. It is a formative research that

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focuses on the use of research results that focus on the design that meets the needs of the users. The findings are linked to research utilization and to create innovative invention that caused by the research obtained.

CONCLUSION

This summary is written from the research on "An innovative prototype model of management to confront with Coronavirus Disease 2019 (COVID-19): A case study of Mahachulalongkornrajavidyalaya University". Action research was conducted and the research process was divided into 4 important steps: Step 1 Planning (Plan), Step 2 Action (Act), Step 3 Observe and Step 4 Reflect the results (Reflect) or called that PAOR process. The issues for data collection were 1) the COVID-19 crisis, 2) the COVID-19 epidemic situation, 3) surveillance and prevention, 4) critical risk management, and 5) the innovative prototype model for management of the COVID-19 epidemic situation, the period of study was the emergency declaration period due to the situation of the coronavirus 2019 (COVID-19) epidemic.An innovative prototype model of Seven ways of New Normal Confronting with COVID-19, there are 7 ways consisted of 1) method of new normal life focusing on health care, 2) method of new normal working using online communication, 3) method of new normal teaching and instruction using online blended learning, 4) method of new normal research and academic management focusing on online working, 5) method of Dhamma public communication in new normal focusing on social distancing, 6) method of sharing expression in new normal using sharing pantries, and 7) method of coexistence in university following Buddhist new normal. This book presents knowledge from research showing innovative prototype model derived from lessons learned on management to confronting the epidemic situation of the coronavirus 2019, a phenomenon occurring in Mahachulalongkornrajavidyalaya University according to the new normal resulting in a model of adaptation in the management of the coronavirus epidemic situation 2019 (COVID-19).

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The Development of Buddhist Situational Leadership of Administrators in Phrapariyattidhamma Dhamma Division in Sangha Administration Region 14

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Abstract— The objectives of this research are 1) to study the leadership conditions according to the situation of the administrators of the Dharma School in the Sangha Administration Region 14; Leader according to the Buddhist situation of the executive using a combined research methodology, namely, quantitative research using a sample of 306 persons, and qualitative methods by interviewing 10 experts and focus group of 10 experts. The results research found that: The state of leadership according to the situation of the administrators of the Phrapariyattidhamma School. The executives have opinions at a high level, in descending order, that the executives had the vision to modify the corporate management strategy, friendship, promote morale and morale in performance, leadership development according to the Buddhist situation of the executives with the leadership characteristics according to the four situations: 1) the aspect of change 2) creativity 3) relationship in the organization 4) leadership power and 4 activities for leadership development according to the situation to propose the development of leadership based on the Buddhist situation of the administrators of the Dharma School in the Sangha administration Region 14, consisting of 4 situational leadership characteristics, integration with the Four Sangkhahavatthu. There are 4 activities including 1) 5 Q activities, 2) 5 prompting questions activities, 3) Person management and administration activities, and 4) Power activities.

Index Terms— *Development of Buddhist, Situational Leadership, Sangha Administration.*

I. INTRODUCTION

The study of Buddhism of Thai monks from ancient times has come to be popular and is called a principle of Dhamma-Vinai, which is known as the study of Dhamma, which is difficult be studied by for ordinary monks and novices. Therefore, it appears that a small number of monks and novices have understood thorough knowledge of the dhamma and are causing the diocese to lack of competent monks to promote religious affairs, both in education, government and teaching people so Somdej phramahasamanachaokromphrayavachirayanwaroros (Prince Vachirayanvaroros). therefore, has developed the method for easier learning the Dhamma in Thai language for teaching monks and novices at Wat Bowon Niwet Viharn for the first time since he took the duty of ruling Wat Bowon Niwet Viharn in 1892 B.E. cte, in teaching course for monks and novices to learn Buddhism both the principles of Buddhism and the history of the discipline, as well as to learn to edit Dhamma topics .When he saw that teaching and learning of Dhamma in Thai language, later, has resulted in a more extensive knowledge of the monks and novices. Because it is not difficult to learn as before, His highness intended to extend this approach to the general monks and novices as well.Somdejphramahasamanachaokromphrayavachirayanw aroros (Prince Vachirayanvaroros).has established a curriculum for the novice to know Dhamma. "Dhamma" for the monks and novices for training and development in the present. [1]

Therefore, in order to meet a better management of the teaching and learning of the Dhamma subject it requires to provide a systematic education in administration and management of education to achieve the goals of education which relies on the professionalism of the school administrators to wide have broad vision, capable morality and ethics, and possesses, both intellectual, emotional and moral intelligence Including professional practice School administrators, therefore, it will lead to educational achievement. [2] It can be said that educational institutions of all levels and types have the main mission of developing learners to have the quality expected according to the level and type of education. The expected quality refers to desirable qualities that will be achieved to learners, including knowledge, understanding, thinking, skills, competence, physical and mental health, and personality traits, values, moral and ethics expected by defining in the

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expected course, expected by the community and society, expected by the school itself and expected by the learner as well [3]

In case of study the background and importance of the problem, the researcher was therefore is interested in studying the leadership by the Buddhist situation of the administrators of Phrapariyatidhamma school on Sanamluang Division in the Sangha Administration Area, Region 14, to be as a guideline for the development of the leadership of the administrators with stability and continuous growth and able to solve various problems. In the administration of the Buddhist Dhamma School in Dhamma Division for the Sangha Administration, including the development of learning the Dhamma School to continue to prosperity.

II. RESEARCH OBJECTIVES

1. To study the state of leadership according to the situation of the administrators of the Phra Pariyatidhamma School in Sanam Luang Division of the Sangha Administration Region 14.

2. To develop leadership based on the Buddhist situation of the administrators of the Phra Pariyatidhamma School.

3. To propose the leadership development according to the Buddhist situation of the administrators of the Phra Pariyatidhamma School.

III. RESEARCH METHODS

Step 1: To study the situation of leadership status of the administrators of the Dhamma School of Dhamma Division in the Sangha Administration, there are 3 steps: 1) Study documents on leadership according to the situation of the administrators,.Data Sources: PhraTripitaka, Books, Textbooks, Research Articles, Website Tools: Study tools, Documents Analysis: By Content Analysis ,2). The questionnaire has been distributed on the management status of the management by the questionnaire [3] from the entire population by using random sampling. With the opening of the tables, 306 samples have been obtained and 3) interviewed on leadership conditions.

Step 2 : to develop the leadership according to the Buddhist situation of the administrator. There are 2 steps: Dhamma Department from objectives and 2) to develop by discussion groups by qualified persons / scholars / administrators of the Dhamma Learning Center, Dhamma , with group of 10 people.

Step 3 : to propose the leadership development according to the Buddhist situation of the administrators.. There are 2 steps: revision, correction and presenting with an advisor / advisor with tools: a study document Data

analysis: content analysis results: Situational leadership development has been achieved by the administrators.

IV. RESEARCH FINDINGS.

The research findings can be discussed as follows:

1. The results of the study, the format of the activities to reduce the study time, increase the learning time of the students at the basic education level according to the government policy, found that the opinions of all four aspects of students were at a high level, namely

Part 1: Learning management, there is a high level of overall practice, i.e. students learn to coexist, considerate and help each other. Students learn and practice happiland develop their own abilities.

Part 2: Enhancing competencies and learning, there is a high level of overall practice, including activity patterns that meet the needs of students. The media / materials used for the activity are appropriate. The duration of the activity is appropriate.

Part3: Strengthen characters and values, there was a high level of overall practice, including activities to cultivate students to become more patriotic, religious and monarchical. The students enjoyed the activities and organizing activities is essential to the daily life of the students.

Part 4: Enhance working, living and life skills, the overall practice level was at a high level, including interest response activities, aptitude, student life promotion activities, activities meet the needs of learners according to their differences, and corresponding to the research results, the format of activities to reduce the study time, increase the knowledge time of the students at the basic education level according to government policy.

In line with Ket Amon's Mingkhaowhas' study of "Conditions and problems according to the policy to reduce school hours Under the Office of Ubon Ratchathani Primary Educational Service Area 4", the research found that the condition and problem of implementation of the policy to reduce school hours in overall practice was at a high level. [6]

And in line with PornthipTaosuwan's research in "Evaluation of the teaching and learning process of primary school teachers: a case study of primary school teachers in Yala Province", the research results were found that[4] factors related to the teaching and learning process the evaluation side informs the students about the evaluation criteria and has prepared the teaching, review and understand the content before the exam. There is a continuous connection of teaching and teaching materials. [7]

2. To develop activities to reduce learning time and increase learning time of primary school students.

Section 1: Learning management includes thoughtful students and helping each other to learn happily, practice and develop, increase one's abilities. Integration to complete 4 Hs, namely Head, Heart, Hand, and Health, and the learning time reduction activities of the Office of the Basic Education Commission set out 4 sections, 16 groups. The four sections include 1) learner development activities, 2) building activities, enhance competence and learning, 3) Strengthen characters and values, and 4) Strengthen working skills, livelihoods and life skills.

Section 2: Enhance competency and learning, i.e. activities that respond to student needs. The media / materials used for the activity are appropriate. The duration of the activity is appropriate. The school focuses on organizing activities to enhance competencies in 5 areas, including communication, thinking development, problem solving, use of technology, and life skills development.

Section 3: To strengthen the characters and values, it includes activities to instill students to become more patriotic, religious and monarchical, and to have fun in doing activities. Organizing activities are essential to the daily life of the students, cultivate consciousness and values to benefit society, have a public mind and use of various services, both for the benefit of ourselves and the public, cultivate patriotism, religion, and the monarchy, and cultivate morality, ethics, and good conduct towards students with 12 values strengthening characteristics and values Strengthening.

Section 4: Strengthening work skills, livelihoods, and life skills, including interest-response activities, aptitude, student life promotion. Activities meet the needs of learners according to their differences, integrate learning experiences with lifestyle, life skills, work with others, love and unity of working in a group, and building work skills. For the lifestyle that the executives and teachers must organize activities that students can use in their daily life, each activity has to be repeated and always focused on review so that students do not forget the activity. The enhancement of working skills, living and life skills consisted of 4 groups of activities, development activities, reducing learning time, increasing learning time for students at basic education level according to government policy.

In accordance with Sukanya Phuphuekok, it was found that the teaching and learning management is linked to the natural community and environment. Practice thinking, practicing, self-assessment and self-improvement, encouraging students to learn happily and successfully, and standard 6 organizes teaching and learning by cultivating morals, ethics and good traits and practicing them into habits.[8]

3. Create a series of activities to reduce learning time to increase the learning time of primary school students as follows: 1. The results of the study of the leadership condition according to the situation of the administrators of the Phra Pariyatidhamma School .The research results are found that by Leadership conditions according to the situation of the administrators of the Phrapariyattidhamma School, the overall management opinion on the situation leadership is at a high level.There are relationships in the organization and power of leaders as follows:

1) The aspect of change , arranged from more to less in three level namely, understanding in education administration, and keeping pace with the current situation, influence on the change in attitude of evaluation and stimulate awareness of the school's mission and vision and the least opinion is to motivate the co-workers to look beyond their interests to the benefit of the school, and the results of the interview have revealed that the changing situation-led leadership is that the management must have vision. The vision of changing old thinking strategies that contradict the school's goals. Change one's mind, and own behavior, change your thinking from thinking to management. Daily work is transformed into thinking through step-by-step planning. Dare to change the organization in which they are responsible towards a better goal. Having your own standpoint and confidence in monks and novices.

2) The aspect of creative , arranged from more to less in three level namely, , including learning team, hopeful thinking and working together to solve problems in the school decentralize decision making for people in the organization and pay attention giving importance to people and work processes and the one that has the least opinion is close attention appearing on the job and in close contact with the students in their school, and according to interviews, leaders should be thought of as a process of thinking, systematic, and not nonsense. The idea of this leader can be put into action and continuously evaluated the practice being creative, solving problems, solving situations in school. It relies on long-term practice, learning experience, problems and solutions with a positive attitude that every problem has a solution.

3) The aspect of relationship within the organization, arranged from more to less in three levels namely, honor and honor to others ,increase work potential, good emotional control, stable and sincere to work even in times of crisis and make friendship and concern both outside and in the work time and the one with

the least opinions is aimed at building confidence provided continuous personnel and build a good working relationship. According to the interview results, it is found that the executives have to know how to control their emotions. Dare to let others express their opinions ,give equal importance to everyone in the school, promote morale and morale in performance, follow the principle of Sangkhahawat 4, having techniques by acting as a good example must be someone who approaches others, have an empathy willing to sacrifice their own interests for their common interests, have good hospitality ,have mercy on each other in order to gain recognition, count, hold trust and be able to work together with happiness, and follow the principle of Brahmavihara.

4) The aspect of power of leaders, arranged from more to less in three levels namely, behavior as a model to the follower, doing the right thing Virtuous Share responsibility for the risks with the followers and makes the followers to believe, respect and trust, trying to imitate the leader and the least comment, having the power to command the followers to be strong, honest and devoted, and the interview results indicated that leaders should exercise their power in the right place. Indeed, it is trusted by subordinates to respect, admire, respect for the leader. These faiths stem from the formation of their own leaders, such as their versatility, honesty generosity to the people in the organization making them have the power to command, the creation of love and faith for the followers. The power of the leader comes from the duty of rewarding, punishment, having knowledge and ability and being respected by the followers. To sit in a person's mind is better than on a person's head, that is the leader who has the power to rule.

2. Development of leadership according to the Buddhist situation of the administrators of the Phrapariyatidhamma School, Sanamluang Division consists of situations of leadership 4 traits: 1) changes, 2) creativity, 3) relationships in the organization, 4) leadership power and 4 situation-based leadership development activities as follows,

1) The changing aspect is creating prestige or ideological influence, inspirational consideration of individuality or individual focus Intellectual stimulation to realize the mission and vision, rewarding according to circumstances talent understanding educational administration to keep up with the current situation, having visions, changing strategies, old ideas that conflict with the goals of the school and dare to change the organization in which they are responsible towards a better goal.

2) Creativity aspect is team learning. There should be a teacher view as a leader. Performance relationships should be based on trust. Leaders should modify their views. Leaders should pay attention and value people. Leaders should emphasize the importance of their customers. They should buried network to achieve two-way communication. Creative leadership requires close attention. Creative leadership will decentralize decision making. Creative leaders must have a strong ability to perform missions in the world. Thinking is a process of thinking that is a systematic way to solve problems, solve bad situations in school, keep practicing and creating experiences, learning problems and solutions of the problem.

3) Relationship within the organization aspect is to understand oneself, the one should have an understanding of others, an understanding of the interactions or communication between oneself and others, honoring others, to increase work potential, make friendship and concern both outside and during work time.

4) The power aspect of leaders is how leaders behave as an example to the followers, make followers believe, respect and trust and try to imitate the conduct of the leader. Trust the leader that doing what is right and good virtuous, share responsibility for the risks with the followers ,Leaders avoid using their power for personal gain, but will behave in order to benefit others is a special characteristic of a person or it is the power of the leader that has a profound effect on the followers. The ability to have the power to command strong honesty and selflessness. Influence on followers able to cultivate a sense of value, respect, appreciation, vision and understanding of mission goals for followers.

There are Buddhist principles in promoting 4 Sangkhahawatthu, namely — Dàna: (giving or share things), kindly speech (Piyavàcà), good doing (Atthacariyà:), participation and behaving oneself properly in all circumstances (Samànattatà) for development of organization, it is a necessary to rely on the Sangha, the Administrator, and the learner develop potential in a society of change.

5) The situation leadership development 4 activities: 1) Transformational Leadership Development Activities 5 Q. 2) Creative Leadership Development Activities "5 Questions to Think About" 3) Relationship Development Activities in Organization "self-management, people management and administration" 4) power development activities of leaders "empowerment"

3.Propose the leadership development according to the Buddhist situation of the administrators of the Phrapariyatidhamma School, Sanamluang Division has been developed it consisted of situations of leadership in 4 traits: 1) Changes, 2) Creativity, 3) Relationships in the

organization, 4) Leadership power and situation-based leadership development of 4 activities as follows.

1. The changing aspect is creating prestige or having an ideological influence ,inspirational consideration of individuality or individual focus intellectual stimulation to realize the mission and vision.

2. Creativity aspect is team learning. There should be a teacher view as a leader. Performance of relationships should be based on trust. Leaders should modify their views. Leaders should pay attention and value people. Leaders should emphasize the importance of their customers.

3. Relationship within the organization aspect is to understand oneself, by understanding others, understanding of the interactions or communication between oneself and others, and honoring others .Situation Leadership Development in 4 Activities: 1) Transformational leadership development activities with 5 Q. 2) Creative Leadership Development Activities "5-question-thinking activities" 3) Relationship development activities in Organization "self-management, people management and administration" 4) power development activities of leaders "Power" as shown in figure 1
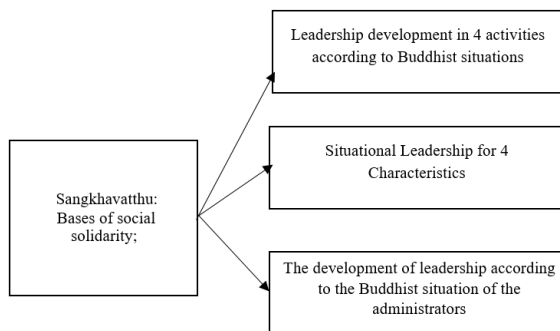
V. DISCUSSION

1. The results of the study of the leadership condition according to the situation of the administrators of the Phra Pariyatidhamma School are found that Leadership conditions according to the situation of the administrators of the Phrapariyattidhamma School in all four areas of the Sangha Administrative Area, the overall management opinion on the situation leadership is at a high level, namely creativity, changing, the relationship between the organization and the power of the leader.

1) The aspect of change, arranged from less to more in 3 levels namely, understanding, education administration, and keeping pace with the current situation. Influence on the change in attitude of the temple management organization and stimulate awareness of the school's mission and vision and the least opinion is to motivate the co-workers to look beyond their interests to the

benefit of the school, and the results of the interview have revealed that the changing situation-led leadership is that the management must have vision. The vision of changing old thinking ,strategies that contradict the school's goals. Change one's mind with own behavior, change your thinking from thinking to management. Daily work is transformed into thinking through step-by-step planning. And dare to change the organization in which they are responsible towards a better goal ,have your own standpoint, have confidence towards monks and novices.

2) The aspect of creative, arranged from less to more in 3 levels namely, learning team, hopeful thinking and working together to solve problems in the school decentralize decision making for people in the organization and pay attention, give importance to people and work processes and the one that has the least opinion is of close attention appearing on the job and in close contact with the students in their school, and according to interviews, leaders should be thought of as a process of thinking, systematic, and not nonsense. The idea of this leader can be put into action and continuously evaluate the practice being creative, solving problems, solving situations in school. It relies on long-term practice, learning experience, problems and solutions by a positive attitude that every problem has a solution.

3) The aspect of relationship with in the organization is arranged from less to more in 3 levels namely, honor and honor others. To increase work potential, good emotional control, stable and sincere to work even in times of crisis and make friendship and concern, both outside and in the work time and the one with the least opinions is aimed at building confidence, provided continuous personnel and build a good working relationship. According to the interview results, it is found that the executives have to know how to control their emotions. Dare to let others express their opinions, give equal importance to everyone in the school promote morale and morale in performance, follow the principle of Sangkhavatthu 4, have techniques by acting as a good example must be someone who approaches others, having an empathy willing to sacrifice their own interests for their common interests, having good hospitality, having mercy on each other . In order to gain recognition, count, hold trust and be able to work together with happiness, by following the principle of Brahmavihara.

4) The aspect of power of leaders is arranged from less to more in 3 level namely, including behavior as a model to the followers, doing the right thing Virtuous, share responsibility for the risks with the followers and makes the followers believe, respect and trust, try to imitate the leader and the least commented, that is the power of

leader to command the followers to be strong, honest and devoted, and the Interview Results indicate that leaders should exercise their power in the right place. Indeed, it is trusled by subordinates to respect, admire, respect for the leader. These faiths stem from the formation of their own leaders, such as their versatility, honesty generosity towards the people in the organization that is the indicate that leader has the power to command the creation of love and faith for the followers. The power of the leader comes from the duty of rewarding, punishment, having knowledge and ability and being respected by the followers, and create faith for the team in the organization as well. [4]

The results of this research indicate that the administrators of the Phra Pariyatidhamma School have the same opinion in the same direction that situation leadership must change creative relationship in the organization, and leadership power that gives executives a respectable leadership. It is able to manage the Buddhist Dhamma School for efficiency and progress in accordance with the research of Phrakrukhemapiwutapichato (Anchurit) who has researched that "Development of Buddhist participatory administration for the administrators of the Buddhist Dhamma School in Sanamluang Division. The results of the research indicated that the administrative environment of the administrators of the Phra Pariyattidhamma School has found that the administration of the school, led by the abbot of each school, who has the highest power, in addition, the school has authorized the headmaster and teachers. It is the father-to-child management system. To participate in decision making in organizing or improving the resource management system, decisions making on how to use limited resources to benefit the public and co-organizing or improving in the development management system for efficiency and effectiveness. To join in the implementation of the plan Projects and activities to achieve the goals. There is an evaluation that the actions taken in accordance with the policy of Mae Kong (Dham Sanamluang Director of Dhamma Division) of delegating the power to the abbot of each temple to proceed in the order rule government with a network to support the administration of the school. [5]

Development of participatory administration of the administrators of the Phrapariyattidhamma School consists of a process of participation in 5 areas: 1) awareness participation, thinking, study and research identify problems and causes 2) Participation in policy planning or project plans or activities 3) Participation in decision making in organizing or improving effective resource management system 4) Participation in control and monitoring and evaluate the performance and use the results to benefit. 5) Participation in benefiting from

development. The results of the evaluation of participatory management from the sample indicated that the mean accuracy is at the highest level and usefulness, suitability and possibility .The average is at a high level, respectively. The guidelines for development of participatory administration of the administrators of the Phrapariyattidhamma School in the Sangha Administration Area, consists of 6 parts as follows:

1) Principles of 5 participation 2) 6 types of participation 3) 26 stages or forms of engagement 4) 10 aspects of engagement 5) processes of participation 5 participatory activities and 6) 5 activities for the development of participatory management by integrating the principle of influence with Idtibaht 4 (4 fold way of success) to the success of the development of participatory management. For the administration of the Buddhist Dharma School with participation, thought, co-operation, responsibility [6]

2. Development of leadership according to the Buddhist situation of the administrators of the Phra Pariyatidhamma School in the Sangha Administration Region 14, it consists of four situations of leadership traits: 1) changes, 2) creativity, 3) relationships in the organization, 4) leadership power and four situation-based leadership development activities as follows.

1. The changing aspect is creating prestige or having an ideological influence. Inspirational consideration of individuality or individual focus intellectual stimulation to realize the mission and vision. Rewarding according to circumstances talent, understanding educational administration to keep up with the current situation, Having visions, changing strategies, old ideas that conflict with the goals of the school. Dare to change the organization in which they are responsible towards a better goal.

2. The aspect of creativity is team learning. There should be a teacher view as a leader. Performance relationships should be based on trust. Leaders should modify their views. Leaders should pay attention and value people. Leaders should emphasize the importance of their customers. They should build network to achieve two-way communication. Creative leadership requires close attention. Creative leadership will decentralize decision making. Creative leaders must have a strong ability to perform missions in the world thinking is a systematic thought process, solving problems, solving dire situations in school, creating experience, learning problems and solutions of the problems.

3.The aspect of relationship within the organization is to understand oneself, by understanding others, understanding of the interactions or communication between oneself and others ,honoring others. To increase

work potential, make friendship and concern both outside and during work time, follow the principles of Sangkhahavatthu 4, having techniques by acting as a good example, being someone who approaches others, having an empathy, good hospitality, compassion to each other, following the principle of Brahmaviharn

4. The power of a leader is that leaders behave as an example to the followers, make followers believe, respect and trust and try to imitate the conduct of the leader. Trust the leader by doing what is right and good virtuous ,share responsibility for the risks with the followers, leaders avoid using their power for personal gain, but will behave in order to benefit others, it is a special characteristic of a person or it is the power of a leader that has a profound effect on the followers, the ability to have the power to command strong honesty and selflessness ,

5. Situational Leadership Development in 4 Activities: 1) Transformational Leadership development activities with 5 Q 2) Creative Leadership Development Activities "5-question-to-think activities" 3) Relationship development activities in Organization "self-management, people management and administration" 4) power development activities of leaders "Power", from which it becomes characteristics of leadership, situational leadership. The results of the study have found that [5] 1. Competencies of the administrators of the Phrapariyatidhamma, School overall, is at a high level. When considering the details, it was found that executive competencies are at a high level in every dimension. The top five categories with a high average are self-responsibility and others. [7] [9]

2. Composition of competencies of administrators of religious studies in Sanamluang Division according to Buddhist principles, it consists of 5 elements which are 1) organizational management competencies component, 2) promotion performance and human resource development component, 3) leadership personality competencies component, 4) self-efficacy in accordance with the Buddhist concept component, 5) knowledge competencies in Buddhist administration, the five elements are important factors for the development of the Buddhist religious studies institute.

3. The evaluation of the competency model of the administrators of the Phrapariyattidhamma School according to Buddhist principles has found that it is appropriate, useful, coherent, and the possibility is in the same direction that will lead to the development of the competency of the administrators of the PhrapariyattiDhamma School, Pali division [8]

1. Propose the leadership development according to the Buddhist situation of the administrators of the Phra Pariyatidhamma School in the Sangha. As follows,

1. The changing aspect is creating prestige or having an ideological influence. inspirational consideration of individuality or individual focus Intellectual stimulation to realize the mission and vision.

2. The creativity aspect is team learning. There should be a teacher view as a leader. Performance relationships should be based on trust. Leaders should modify their views. Leaders should pay attention and value people. Leaders should emphasize the importance of their customers.

3. The aspect of relationship within the organization is to understand oneself, by understanding others, understanding the interactions or communication between oneself and others honoring others, to increase work potential making friendship and concern both outside and during work time.

4. The aspect of power of a leader is that leaders behave as an example to the follower, make followers believe, respect and trust and try to imitate the conduct of the leader trust the leader that doing what is right and good virtuous, and share responsibility for the risks with the followers.

The results of this research are consistent with the research of Hartley, J. and B. Hinksman has made research on Leadership Development: A Systematic Review Research is based on publications, research on leadership development. Research has found that leadership development is related to the development of the individual's ability to help them learn by new methods. The best leadership development should focus on strategy, and the context of the organization in order to design and put into practice properly, Leadership development can be done in two ways: 1) a formal manner, such as training courses development program and 2) informal aspects that support leadership development, such as practical experience in section of the need for leadership development. The conceptual competence framework should be used to identify the leadership that is required in each organization. To be used as a criterion for determining core skills and as a guideline for developing the lack of competencies of each employee. In addition, assessments such as 360-degree assessments should also be used in conjunction with the competency conceptual framework. A popular approach used in leadership development includes a 360-degree assessment, mentoring, teaching, networking. Learning from practice being assigned a challenging task temporarily, learning from other agencies ,successor planning formal training development of high-achieving

civil servants organization development and working together as partners that is the model of leadership used in leadership development. [10]

VI. CONCLUSION

Leadership development according to the Buddhist situation of the administrators of the Prapariyattidhamdhamma Division school in the Sangha Administration Region 14, consists of characteristics of situational Leadership in 4 aspects, namely, 1) Change 2) Creativity 3) Relationships in the organization 4) leadership power by Integration with Buddhist principles in the promotion, namely giving(Dàna), kindly speech (Piyavàcà), useful conduct (Atthacariyà), participation and behaving oneself properly in all circumstances (Samànattatà) and the leadership development activities according to the situation of 4 activities: 1) Leadership development activities with 5 Q 2) Creative leadership development activities "5 questions to think about" 3. Activities for relationship development in the organization "self management, people management and management". 4. Leadership Power Development Activity "Power of Power

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Legal Measures for Gratitude for Elderly Providing Social Security to the Elderly

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Abstract—This research aims to analyze policies, laws and strategies of foreign countries providing social security to the elderly especially those related to law on gratitude. The research utilized a mixed methods research including both qualitative research and quantitative research. The qualitative research exercised in-depth interview to 30 experts and related persons, document research and group discussion among 10 people. The quantitative research was utilized by questionnaires towards sample groups in 4 regions, totaling 400 people and using quota sampling method to collect data which were analyzed using descriptive statistics and reference research. The significant results of this research were summarized as follows: conversion of filial piety to be the law on gratitude may be done as same as 4 foreign countries where provide development of the law on gratitude. However, it must be high time of extreme necessity and appropriateness if such law on gratitude has coercion manner, penalty and other punitive measure in general against violators, otherwise detrimental effect will be occurred to the elderly, family and society. Body of knowledge of this article will enhancing the quality of life for the elderly.

Index Terms—Legal Measures, Elderly, Social Secu

rI. INTRODUCTION

The number of older/elderly people in Thailand is persistently increasing at a higher rate. The United Nations defines population aged 65 and above by over 7% of the total population as an aging society, by over 14% as an aged society, and by over 20% as a super aged society. Result of the 2017 survey of the older population in Thailand indicated that Thailand is stepping into an agedsociety with approximately 11.3 million people aged 60 years and above or 16.7% of whole Thai population[1].The statisticsalso indicatedtheir number tend to berapidly and persistentlyrisingin each year. Their economic, social, health and mental dependence ratio would be likewise ascending. Meanwhile, proportion of child and labor-age population have steadily declined. When considering ASEAN member countries, the number of older people of Thailand and Singapore werein the top rankings and expected that these two countries would have proportion of older people by over 30% in 2040 [2].

Several national economic and social development plans mention several aspects of Thai society affecting the older population such as inequality, economic concentration and development. Policy and legal considerations relating to them involve subsistence allowanceand social welfare in light ofincome and social security for the elderly[3]. In this regard, Thai elderly are fortunately entitled to any of Civil Servant Medical Benefit Scheme (CSMBS), Social Security Scheme (SSS), Universal Coverage Scheme (UCS) and monthly subsistence allowance inprogressive rate for the elderlyas a result of governmentpolicy and by law.But the huge budget and resources have been allocated and spent more and more in those social welfare or security schemes and may be restrictively supplied in the long run. More difficulties of law and policy relating to social welfare and security may come up in the future amongthe elderly's limited access to labor market, social changes, less birth and negative attitudes towards the elderly, etc.

It is interesting to explore how current role and responsibilitiesof each family provided to elder parents and otheraged people, as Japan's policy towards the older population states that the public sector should promote self-family care of the elderly rather than emphasis on providing social welfare. Thus, elder care should be transferred to their own family; meanwhile, public sector may provide support and assistance as deemed appropriate or on case-by-case basis.

In addition to basic rights of the elderly are recognized by international law,principle and provisions of gratitude (Filial Piety) provided in laws of many countries i.e. The People's Republic of China ("China"),the Republic of Singapore ("Singapore),the Republic of India ("India")and the French Republic ("France") which based on intensive attention to solve irreverence, non-deference, ingratitude,non-requitement and others presently encountered by the elderly.Such domestic laws exist with a view to protecting the elderly both physically and mentally from neglect by their own children andpoor caring and supportof the elderly or abandoning their parents.

As to none of specific statutes of Thai law on gratitude provided, the researchers view a development of law on gratitude (Filial Piety Law) may be an optional tool to

promote self-family care of the aged parents rather than merely providing social welfare and security to the elderly. Such tool can be inclusive in line with relevant plan, strategy and law so as to prepare for greater number of the older population in the future and conform with a Thai value adhered to be descendants' duty from the old days in providing parental care which is gratitude and auspicious to their own life.

Few research questionsare(1) whether policy and development of mandatory lawfor entitlement of a right to claim for maintenance and expenses and/or penalty against any defaulting descendants for restoringfilial pietyare appropriate or not and (2) is it high time to provide this nature of policy and lawin Thailand for social security among changing current Thai context?

II. RESEARCH OBJECTIVES

This research aims to analyze policies and laws of foreign countries that provide social security for the elderly, especially those relating to the Filial Piety Law.

III. RESEARCH METHODS

A. Research Design

The research utilized a mixed method including both qualitative research and quantitative research. The qualitative research exercised in-depth interview to 30 experts and related persons by randomized research Purposive sampling is used according to the eligibility criteria of different types of experts, document research and focus group discussion among 10 people by inviting representatives from various aspects. The quantitative research utilized questionnaires towards sample groups in 4 regions i.e. North, Northeast, Central and South, totaling 400 people and using quota sampling method to collect data which were analyzed by descriptive statistics and reference research.

B. Research Process

To study and analyzein the followingscope and methodology:

1)Opinions on problems and obstacles linked to legal measures under the filial piety law of foreign countries and legal measures under Thai laws and regulations; opinion on policies and strategies on social security for the elderly, especially relating to the filial piety law, by qualitative approach includingin-depth interviews to experts and related people;

2)Laws, policies and strategies of foreign countries that provide social security for the elderly, especially relating to the filial piety law, by qualitative approach including documentary research;

3)Legal measures relating to the elderly of Thailand and foreign countries,by qualitative approach including group discussions among experts and related people and

4)Opportunities of enhancing social security for the elderly, especially in connection with the filial piety law for promoting effective elder care, by qualitative approach including group discussions among experts and related people

IV. RESULTS

1. Results from document research

A comparative study of structure of population among 4 countries where have specific filial piety law or law being scope of filial piety law. According to the United Nations' report [4], World Population Ageing 2015, India has not yet been classified as ageing society. China, Singapore and Thailand were classified as ageing society since these countries' population aged 65 and above were by over 7%. France population aged 65 and above was by over 14% classified as aged society. In addition, Japan was a super-aged society by over 25% of the population aged 65 years and above since 2013, in other words, a quarter of Japanese population are the elderly and forecasted to continue growing.

With reference to concept, definition and theory of law and social science, especially elderly, filial piety value, de-institution approach, nature of law in relation to legal development pursuant to social change, they can be connected to policy and legal measures on gratitude/filial piety.The "filial piety" --consists of gratitude and requitement. Its value reflects, also referring to Chinese philosophy, both inner feelings and acts of love, care, appreciation,respector reverence, support and requitement towards parents and other benefactors regardless of being aged people.Owing to scope of this research,the filial piety focuses on the elderly who have benefaction to other people.

The filial piety value is included in the state policy and plan on the elderly which are integral part of indicating governmental attention and direction of operating works for the elderly i.e. protection of rights, provision of care and

welfare, development of the quality of life etc. Besides, application of law is integral part of mechanism and a tool of implementation either legislating new law or amending existing law.

1.1 Policies

In respect of policy of China, Singapore, India and France, related and interesting policy on the elderly as follows:

1) **China:**Promoting family care of the elderly and former system of supporting family care by training family members to provide care of elder parents and other elder members of the family as well as promoting knowledge, skill and capacity to their children and family members by emphasis on mental health of the elderly impacted by changing social change in China.

During preceding decade, Chinese government formulatedsignificant policy and purpose of operating elder care i.e. caretaker and non-abandonment, medical treatment of ill people, obtainingeducation as desired, employment as desired, having happy life and self-esteem. The 2010 surveyfound the elderly being ill in moderate and serious level receive their own family's care which is informal and likely to be the most important. Only less part of all elderly relied on or receive professional care [5]. More important factors were on their descendants and family members in providing care, time and chance of meeting with the elderly even though communication advanced technology of communication is prevalent.

2) **Singapore:**The Government of Singapore formulated a motto "Successful Ageing for Singapore" with various policies and action plans based on centralization of management and "de-institution approach" by adherence of the following 3 principles i.e. self-reliance and social responsibility,family-reliance and multiple sectoral cooperation. Its focusesinclude family's duty to bring up elder parents,maintaining value of family institution and multi-dimension cooperation approach, not solely on state duty to provide social welfare for the elderly and on receiving by the elderly.

3)**France:**As huge amount of money has beenspent for various social welfares particularly the dependent elderly, the French government was also more enthusiastic to provide elder care and could not accept irresponsible descendants and abandoned parents. Several policies and measures were provided in order to augment proper physical and mental care of the elderly in urban area, and at home especially the elderly being ill and without self-help and self-reliance and to monitor their well-being and movement aside from basic necessities and maintenance.

4)**India:**Policy emphasizing on value of family institution in providing physical, mental and emotional care for the elderly, on supporting cohabitation among different generations in the family by tax reduction and on duty to act in pursuance with the filial piety. Relevant mechanism has been set up to enhance knowledge, skill and capacity to provide elder care both in urban and rural areas especially most low-income populationand various categories of the elderly in needs of subsistence, safety and security.

1.2 Laws

Owing to changing of social context and value of filial piety in the aforesaid countries especially during preceding decade, it is optimistic that their public sector has turned to pay more attention on situations and problems of the elderly. As a result, the aforementioned policy, plan and legal measures (bothspecific filial piety law and law being scope of filial piety law) in multi-sectoral and multi-level for various categories of the elderly are broadly provided in order to provide better elder care, protection of rights, protection of their rights and enhancing their quality of life.

Nature of law-making and intent of laws including both specific filial piety law and law being scope of filial piety law of 4 foreign countries were as follows:

Country and law title	Nature of law-making	Intents of law
France Civil Code, amendment being in force in 2004	Existing code amended	• Child and others being subject to the lawprovide more caring for the elder parents' mental and financial needs and not abandon them.
China Law on Protection of the Rights and Interests of the Elderly, amendment being in force in 2015	Existing specific law amended	• Recognize more rights and interests for the elderly • Child and others being subject to the lawprovide more caring for the elder parents' mental and financial needs
Singapore The Maintenance of Parents Act (Cap 1678), amendment being in force in 2015	Existing specific law amended	• Child and others being subject to the lawprovide more caring for the elder parents' mental and financial needs • Proving non-court Tribunal to consider and issue orders regarding payment of alimony
India Maintenance and Welfare of Parents and Senior Citizens Act, 2007	New specific law enacted	• Aim at protecting the elderly's life, property and security • Child and others being subject to the lawprovide more caring for the elder parents' mental and

		financial needs
		• Proving non-court Tribunal to consider and issue orders regarding payment of alimony

Table 1. Nature of law-making and intent of specific filial piety law and law being scope of filial piety of 4 countries

The researcherssortedsuch lawsof four countries into two categories:

1)First, stipulating broad range of conducts and prohibitions which emphasize protection of rights, protection of parents and elderly's life and property,reverence, caringespecially mental needs, nurture covering essentialityfor living such as 4 basic necessities, finance, medical care, health care, etc., as provided in the laws of France and China;

2) Second, emphasizing on bringing up, financial responsibility to the elderly by providing alimony, 4 basic necessities, medical examination and treatment, as provided in the laws of Singapore and India. which appears in the laws of Singapore and India

Aside from intents of those laws of 4 countries appeared in Table 1 above, intents of law can be summarized as follows:

1) Aiming to protect the elderly's rights and interests directly, followed by protecting family institutions;

2) Aiming to raise public awareness, encourage and restore ethics, morality and filial piety in society, as found in positive way that all 4 countries destined to restore caring for elder parents or maintain relationship between parents and childrenas well as noted that whenever good conducts with filial piety towards the elderly, they would be equivalent to public sector devote money and resources to provide high-quality service or welfare for the elderly;

3) Aiming to arousemindfulness or restore state of mind (personal and family) and to bring about behavioral adjustment of child and others being subject to the law rather than adequate punishment against wrongdoer or lawbreakerby applying nature of the law as a tool to control behaviorsbothdoing and refrain from doing as required by the law.

The researchers also keep in mind that some countries enact and enforce effectively the law but some countries encounter the public's opposition due to its irrelevant consequences from the law enforcement.

The analytical study found that Chinese law being scope of filial piety lawwhich is amended specific law is prominent and explicit in respect of protection of the elderly's rights and interests. Such law stipulates conducts and prohibitions for those are subject to the law to maintain family institution, promote Chinese pleasant values having so far been since ancient times, emphasize on role, duties, participation and conducts of various people related to the

elderly with details of multi-facets of the elderly life. Indeed, this law does not provide explicitly penalty but authorizes the Court to exert discretion to consider and adjudge in this nature of civil case with appropriate penalty measure as deemed appropriate for instance the Court orderthe convict to visit his/her mother at least once a month and in public holidays.

After those laws of 4 countries were enforced, there were criticisms in every country.The law requires offspring to return hometown to visit and take care of elder parents perceived as a good intention and strategy to fulfill the elderly's mental loneliness and happiness. On the other hand, such legal measures may cause suffering and hardship to the descendants anyway and may cause more mental alienation or disaffection between generations. Actually, it is a matter of personal morality, mindfulness, ethics, emotion and feelings of the child or other descendants on their own. It is unnecessary for the authorities to formulate or oblige persons by law (Singapore's the Maintenance of Parents Act) to conduct like filial piety especially low-income child, child who fails to or has less capacity or other limitations to bring up his/her child and elder parents in the same time or to nurture improperly elder parents. Such legal requirements, indeed, cannot ensure whether or how good the elderly's needs has been satisfied or not.

Moreover, findings include issues of family relationships,inexplicit or ambiguity of the law, extensive and effective mechanism of law enforcement, the child's limitation to grant necessities to the elderly pursuant to changed society and family nature. Nevertheless, Chinese Law on Protection of the Rights and Interests of the Elderly may be a relevant model for revision of the law on elderly, various action plans and development of Thai law being scope of filial piety law.

2. Research findings from in-depth interviews

The results of the in-depth interviews related to policies and laws can be summarized as follows:

1) The primary needs of the elderly are income, medical treatment, care, love and warmth.

2) Family members are suitable to be frontline providing elder care.In this regard, culture of realization and good attitudes should be implanted. Any of government agency, institution, organization, elderly development center should be established to be focal point of personnel providing assistance, advice and various knowledge together with virtuous cooperation among the elderly's descendants. Such personnel must be local or community people where the elderly reside therein. Besides, for long-term operations, their management must be systemized.

3) To develop legal measures of effective promotion or enhancement of filial piety to be social security, motivation and reinforcement would be more beneficial than making

law that stipulates proper conducts and penalties. Such motivation may be created for proper operations in each organization and for encouraging family members to nurture and take care of the elderly well.Public sector must arrange support, campaign, mindfulness-raising and good family relationship that will bring about elder care in pleasant manner, culture of filial piety among offspring and family members, responsibility of elder care.

4) Measures of motivating offspring/family membersto provide better nurturing treatment for the elderly are as follows: (1) Right to take leave with pay for taking care of the elderly getting general ailments and severe illness, but if term of leave is longer than 1 month, such leave will be without pay; (2) Arrange vehicles and facilities to provide services of transporting or escorting the elderly in need of emergency medical care and treatment; (3) Tax reduction for those who patronize and nurture the elderly; (4) Set up the elder care center in day time for participating activities and caregiving; (5) Arrange proper medical facility and nursing home for the elderly and (6) Provide discount in physical checkup and medical care in special occasion. Most of all, public sector should support budget or subsidize expenses of elder care.

5) As for legislation of the filial piety law for the elderly, local and community people had better take important role in implementation and participation of making the legal provisions due to their proximate relationship with the elderly. However, current situation has not yet reached a critical level to necessitate making the filial piety law. Applicable laws can be used in beneficial way by creating motivation and encouragement for better conducts of elder care, otherwise such law-making will become hindrance.

6) Obstacles or problems of developing policies and laws on elder care and support to be social security for the elderly are continuity of policy,lack of earnest operation and information being in accessible to local and community areas where the elderly resides. Accordingly, efficient enforcement should be done.

7) Auxiliary in development of policies and laws on elder care and provision of good and sustainable social security for the elderly are self-reliance value and intention of various related sectorsi.e public entities, private entities, community, clubs, centers, individuals to jointly promote accurate value and knowledge about older people in order to satisfy the elderly's needs, not merely request for government assistance. In addition, such sections must stimulate people to have good attitudes towards the elderly and address the elderly's values. Most of all, family institution is highlighted in provision of elder care.

3. Research findings from group discussions

Most participants do not agree to making a new law or development of a law being scope of the filial piety. As for

development of the filial pietylaw of Thailand, insertion of some provisions into relevant applicable laws and regulations can be more possible than legislating new law or the Act. Otherwise, it will become an ingratitude. Most participants agree to development of law on enhancement, motivation of the filial piety value and practices, as local and community people have intensively endeavored to enhance trainings on family care which are very useful to the elderly.

4. Results of quantitative data analysis

The quantitative research methods were analyzed as general information of the respondents. Most respondents were female for 216 people, by 54.00 percent, and males for 184 people, by 46.00 percent, respectively.Most of them were between 36-45 years old for 145 people, by 36.25 percent. Followed by the age between 23-25 years old for 117 people, by 29.25 percent, below 25 years old for 73 people, by 18.25 percent, the age between 46-55 years for 58 people, by 14.50 percent and over 56 years old for 7 people, by 1.75 percent, respectively.

As for the income of the respondents, most respondents have income between 15,000-25,000 baht for 188 people, by 47.00 percent, having income less than 15,000 baht, for 80 people, by 20.00 percent, having income between 25,001-35,000 baht for 72 people, by 18.00 percent, having income between 35,001-45,000 baht for 53 people, by 13.25 percent, having income between 45,001-55,000 baht for 5 people, by 1.25 percent and income between 55,001-80,000 baht for 2 people, by 0.50 percent, respectively.

Most respondents did not live with the elderly, for 216 people, by 54.00 percent, and living with the elderly for 146 people, by 36.5 percent, respectively. The vast majority of the elderly in their families accounted for 363 people, by 90.75 percent and no elderly in the family for 30 people, by 7.50 percent, respectively. Most of them participated in caring for the elderly in the family for 181 visits, by 45.25 percent, taken them to the hospital for 72 people, by 18.00 percent, depletion of expenses for 56 people, by 14.00 percent and taking them for trips for 55 people, by 13.75 percent, respectively.

Opinions and suggestions on public sector's improvement of services for the elderly in the first priority vastly relate to state policies and actions on social welfare and social security for the elderly. Nevertheless, some of them suggest arousing descendants' mindfulness to nurture and care for the elderly and enhancing knowledge of the elderly care to descendants and family members. Opinions and suggestions on public sector's improvement of services for the elderly in the 2nd ranking include trainings on elder care and keeping in mind of responsibility for the elderly in family to prevent solitary stay. Besides, other suggestions relating to the filial piety include enhancing value of filial

piety towards the elderly in particular into new generations' acknowledgment and realization in concern of changing social context, etc. However, there were not implicit opinions and suggestions relating to development of the filial piety law in Thailand.

V. DISCUSSIONS

In formulating policies, laws and operations in various facets relating to the elderly for social security, changing social context must be considered. From analysis of the policy on the elderly of the 4 countries together with the consideration of these countries' development level among changing social context, government policies have more emphasized caring for the elderly in various ways. In family, community, institutional and national level, their public sectors have more emphasized on promoting family care and family care support systems based on traditional life of the elderly and values added by enhancement of education, skills and abilities to descendants and family members. China and France focus on the elderly 's mental health affected by changing social context via contacts, visits and monitor of movement and well-being [6], in addition to providing 4 basic necessities, alimony and various expenses.

Every country seeks to uphold values of the family institution, family relationships, family dependenceusually being in charge of caring for the elderparents, elderly care andfilial piety. Among such 4 countries, legislation and amendments have been made in accordance with these policy lines as well. When a violation or non-compliance is done,actions include exercise of claims litigation byparents or elderly. The lawsrequirepayment of alimony and its interest or taking compulsory measures to observe the Court's decisions or orders such as obliged tovisit the elderparents for specifiednumber of visits and period of time as well as punishments both fines and imprisonment, subject to circumstances[7].

Nevertheless, after the enforcement of the4 countries' specific filial piety law and law being scope of filial piety law, many interesting criticisms pointed out both advantages and disadvantages of such law development. Some advantagesare reflected from requirement to visit, nurture, take care of the elder parents perceived as fulfilment of the elderly's mental loneliness and happiness by gratitude, reverence, support and requitement towards them(other elder benefactors also included, if any).This complies with a result from in-depth interview, the participants pointed out primary needs of the elderly including care, love and warmth.In this way, it has been perceived as good intention and strategy to solve irreverence, non-deference, ingratitude, non-requitement and others; meanwhile, to restore and enhance the value of filial piety in the society among different generations that leads to indirect social security.

In the meantime, some disadvantages came frommandatory or coercion nature of law, penalty imposed

and other punitive measure against violators.Such legal measures may cause suffering and hardship especially low-income child, child who fails to or has less capacity or other limitations to bring up his/her child and elder parents in the same time or to nurture improperly elder parents. Moreover, it has also causedmore mental alienation or disaffection between generations. Strong points of view indicatematters of personal morality, mindfulness, ethics, emotion and feelings of the child or other descendants on their own. Hence, it is unnecessary for the authorities to formulate or oblige persons by law to conduct like filial piety.Such legal requirements, indeed, cannot ensure whether or how good the elderly's needs has been satisfied or not. These disadvantages and remarks are in compliance with opinions from group discussion among Thai participants that most of them viewed legislating new law can become an ingratitude and in pursuance with opinions from in-depth interviewreflecting that current situation of Thailand has not yet reached a critical level to necessitate making the filial piety law which will become hindrance.Applicable laws can be used in beneficial way by creating motivation and encouragement for better conducts of elder care. Indeed, obstacles or problems of developing policies and laws on elder care and support to be social security for the elderly are continuity of policy, lack of earnest operation and information being inaccessible to local and community areas where the elderly resides.

VI. RECOMMENDATIONS

A. Recommendations for Practices

1) Developing policies on social security for the elderly based on continuity of policy, earnest operations and information being accessible to local and community areas where the elderly resides;

2) Amendment or insertion of some provisions into relevant applicable laws and regulations;

3) Development of policies and laws in respect of motivation and reinforcement of the filial piety value and practices

B. Recommendations for Further Research

Should study opinions and needs of the people in the development of policy and lawon the elderlyregarding motivation and health insurance to support social security of the elderly.

CONCLUSION

Development of policy and mandatory law for entitlement of a right to claim for maintenance and expenses and/or penalty against any defaulting descendants for restoring and enhancing filial piety may be appropriate in some countries, although the public's opposition or irrelevant consequences found in some countries. For Thailand, under current social context relating to the filial

piety which is neither critical, it has not yet been necessary for making the filial piety law. Development of policies on motivation and reinforcement to strengthen family institution or amendment of some provisions into relevant applicable laws and regulations can be possible to enhance social security for the elderly.

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Development of Personal Income Taxation Achievement by Practicing Skills within the Class in the Course of Tax Law

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Abstract— This academic article presents the principles of teaching and learning to promote proactive learning or active learning. Action by focusing on learning is important, and also using the proactive learning management process. The use of learning through the use of practicing skills within the class. The goal of teaching and learning management that focuses on the students is to manage learners to create new knowledge through self-thinking process, allowing the learner to learn by doing, and to understand. It can bring knowledge to integrate into daily life and have qualifications for the goals of education that want learners to be smart, good and happy. Good teaching is a dynamic movement, constantly changing, both in organizing activities and teaching method which consists of creating atmosphere, technique, style, content, and things that are not too far from the students and planning of teaching and learning systematically.

Index Terms— Achievement, Personal Income Taxation, Practicing Skills

I. INTRODUCTION

National Education Act 1999, Section 22 states that the provision of education must be based on the principle that all learners have the ability to learn and develop themselves, and that learners are of the most importance in academic learning. On the legal side must have good knowledge, skills and attitudes in the legal profession. At present, the business industry has expanded more. Taxation is more important. Coupled with the economic situation and the trade of the country has evolved rapidly. The importance of taxation information requires accuracy, certainty and reliability.

All educational institutions would like to have education management to be effective and meet the goals according to the vision mission of each place by establishing strategies for developing the process for selecting learners with potential. The teaching and learning management according to the National Education Act 1999 has focused on the learners most important. All learners have the ability to learn and develop themselves. In the management of education, it is necessary to encourage learners to develop themselves to their full potential. Therefore, in the management of teaching, there must be a variety of forms to meet the needs of individual learners. The instructor must give the learner the greatest care. By studying the teaching methods and learning methods of learners in new ways to be used in solving problems or developing learners. With a focus on teaching instructors to integrate research processes or integrate them into learning development [1]

From observing teaching and learning in the subject of tax law on personal income tax for the 4th year students in the Bachelor of Laws program, it was found that students could not distinguish the type of tax in the personal income tax and calculation error. The main item relating to the calculation of personal income tax must be able to classify the individual income and deduct the deductible correctly.

From the teaching results of the students in the aforementioned law programs Found that students studying tax law only 20 percent of which can calculate personal income tax correctly, the other 80 percent do not understand the principles of personal income tax calculation. Relying solely on memorization and do not understand about calculating personal income tax. When analyzing the main causes of teaching and learning, it was found that the students' failure to prepare the exercises by themselves. Caused by the students do not understand it. Because the students will not seek help with classmates in matters they do not yet understand. Fear of friends to insult and it is also important to note that once each day of study is complete, students will hurry home. It may cause students to incorrectly

calculate personal income tax, which is a reason for confusion. If it still going on or has not been resolved it will cause an impact on academic achievement will lead to a bad attitude towards continuing to study tax law.

Therefore, the instructor decided to solve the problem for students to have the skills to calculate the personal income tax correctly. Using the personal income tax calculation skill form to develop students to know the process of calculating personal income tax on personal income tax in Tax Law.

The Bachelor of Laws program recognizes the great importance and necessity of tax law. This is a course that focuses on the importance of students to increase their potential to be efficient and effective by studying the principles of taxation in respect of income tax from the Revenue Code, for example personal income tax. Corporate income tax VAT Specific business tax And stamp duty. Which will enable learners to apply their knowledge and ability to apply in daily life and professional practice in order to develop the potential of the lecturers of the Bachelor of Laws to international. This is in line with [2] research on the expectation of Bachelor of Law students in teaching English for lawyers The key findings of this study are that students have high overall and individual expectations for teaching English for Law. In particular, the instructors' teaching expectations were at the highest level. And the instructors should understand and recognize the importance of students' basics in English. For the achievement of teaching and learning that will make the students learn real benefits.

Teaching this subject in tax law the instructor has organized a student-centered instruction. In order for learners to create new knowledge through the self-thinking process. Which allows the learner to learn by doing understand and can bring knowledge to integrate into daily life. Have qualifications for the goals of education that want learners to be smart, good and happy. Instructors therefore take into account various issues in organizing teaching and learning activities. Individual differences of learners focusing on the needs of the learners improving the quality of life of the learners activities to be interesting does not make the students feel bored kindness to learners challenging the learner to know recognizing the right time for learners to learn creating an atmosphere or situation for learners to learn by doing. Support and promote learning teaching aim learners understanding learner background not sticking to one particular method teaching good is dynamic, that is, the movement is constantly changing in terms of activities. Atmosphere creation Form, content, techniques, methods of teaching things that are not too far from the learner And teaching and teaching planning systematically by definition

of academic achievement (Achievement) at [3] has defined the achievement as it is learning according to a predetermined plan. Arising from the teaching and learning process during a particular period of time which find [4] meaning that the measure of academic achievement is a measure of academic success. Or measure the learning experience that students gain from teaching and learning. It is measured according to the aim of teaching or to measure the achievement of the education and training programs. This is consistent with [5] defining academic achievement as attributes, including knowledge. The competence of the individual as a result of the teaching or the mass experience that the individual gains from teaching Causing individuals to change behavior in different areas of brain function Which is intended to check the level of brain competence of a person that learns what And what kind of ability. As well as the consequences of learning, training or experiences in school, at home and in other environments, including feelings, values and ethics are the result of practice. From this definition Academic achievement is the learning outcome according to the course Acquired according to the measurement and evaluation principles covering both cognitive and cognitive aspects emotional and emotional or spiritual aspects and the skill, practice, or character skill set by the instructor at a particular time. In general, the measure of academic achievement will measure knowledge and abilities according to the subject matter studied which is mostly cognitive or cognitive Most of the tools used to measure the test are called the achievement test. The objective is to know that the learner after the teaching and learning process will have the knowledge level. So that instructors can find a way to improve, correct, develop and encourage learners to develop their knowledge to their full potential. But to create a quality test the instructor must have knowledge of the nature of the test. Planning, creating principles, creating a selection of test types to suit the content; and use of exam results to improve and summarize grades.

II. MEANING OF ACHIEVEMENT TEST

The word the achievement test has many interested people to study the meaning and say it. Achievement tests mean that the achievement test is a test used to measure the brain behavior of the learners having knowledge and ability in the subject they have learned. Or how much has been trained? [1] [6] said that the learning achievement test was a test that measures knowledge, skills, and academic ability that the

learner has learned how accomplished the stated purpose. So it can be concluded that Academic achievement test is a test used to measure knowledge and skills learned from the past or in the present state of the individual. However [7] said achievement means success, fluency. Proficiency in the use of skills or the application of knowledge, the achievement refers to the knowledge or skills that arise from learning in the subjects that have been learned. This is obtained from the results of the instructor test or the person responsible for teaching or both.

From the above, it can be concluded that academic achievement is the learning outcome according to the course which has been applied in accordance with the measurement and evaluation principles covering both knowledge thought or cognition emotional and emotional or psychological aspects and the skill, practice, or skill set by the instructor during the period of instruction.

Types of tests

There are two types of achievement tests: instructor made tests and standardized tests. Both of which ask for the same content. It was asked what the learners had received from the teaching which could group 6 types of behaviors: knowledge, memory, comprehension, application, analysis, synthesis and assessment. [5]

1) Instructor-created quizzes are self-created quizzes to test students in a classroom.

1.1 Objective tests such as True-false, Matching, Completion or Short answer and multiple choice.

1.2 Essay tests, for example restricted response items and Extended response items.

2) Standardized test are tests that produce by experts with knowledge of the content and have test-making skills there is an analysis of the quality of the test. There is a clarification on the examination. Grading and Interpretation. There is multiple choice (Objective) accuracy (Validity) and confidence. (Reliability) Standardized tests include the California Achievement Test, the Iowa Test of Basic Skills, Standford Achievement Test, and the Metropolitan Achievement tests.
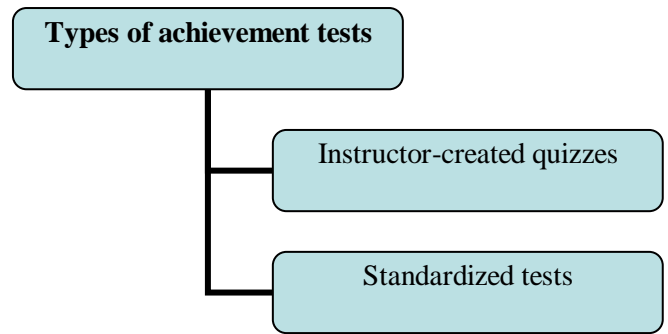
Fig. 1 Types of achievement tests

For [8], the test was classified into 3 types as follows:

1) The oral version is a test that relies on individual questioning. It works well if a small number of people take the exam. Because it takes a lot of time can ask carefully because they can interact with each other

2) The written answer is a test that is changed from the oral exam. Due to the large number of people who take the exam and the number is limited, it can be divided into 2 types:

(1) Essay or subjective is an exam that allows respondents to independently compile their own words in expressing attitudes, feelings and thoughts under a given subject. Is an exam that can Good measure of synthesis behavior but there is a downside to the rating. Which may not be accurate making it difficult to have multiple choice.

(2) Answer limit it is an exam that has correct answers under limited conditions. This type of test is divided into 4 types: correct, wrong, additive, matching and multiple choice.

3) Practice exercise is a test in which the test taker demonstrates the behavior by actual action or practice, such as a musical test, mechanic, physical education, etc.
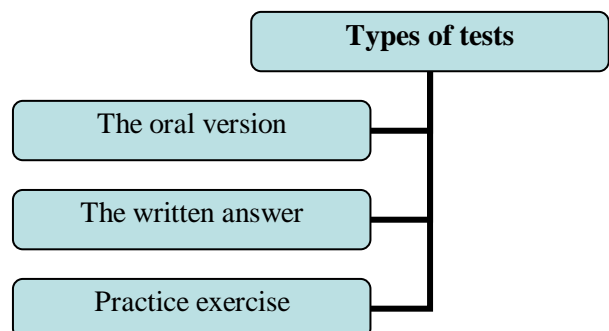
Fig.2 Types of tests

It can be concluded that the academic achievement test can be divided into two types: standardized test. Which is built by experts in content and educational measurement there is a good quality search. The other type is instructor-created quizzes. For use in classroom testing in designing, testing, measuring academic achievement, vocabulary for communication. The instructor has chosen a researcher-built practice test to measure vocabulary ability to be used in oral and written communication and choose a written quiz that limits answers by selecting answers from the given options. In creating quizzes to cover content and measure behaviors that are appropriate to the content. Developing the table of specifications should be created to guide the building, just like building a house drawing. Also known as a Test blueprint, the curriculum analyzes the curriculum topic. And learning objectives and desired behaviors to be measured.

Creating a Tables Analysis Course starts with creating a 2D table, ie vertical, the behaviors that need to be measured including memory, understanding, application, analysis, synthesis and valuation the horizontal section is for the topic, content or learning objective. Which depends on the subject matter and / or objectives. Then determine the weight of the content. Consider the importance of the content which may define the weight in percent Along with determining the behaviors that need to be measured and set the importance By considering the learning purpose along with the content Finally, the test to be measured, such as correct, wrong, match, add-on, choice or subjective, etc.

III. THE BENEFITS OF SKILL EXERCISES

The benefits and importance of skill exercises. [9]

1. Make students better understand the lessons.

2. Make the instructors know the understanding of students towards learning.

3. Helps instructors improve teaching content and activities in each lesson.

4. Help children to learn better according to their abilities.

5. Train students to have confidence and be able to assess their work.

6. Train students to work sequentially with responsibility for the assignments.

Where [10] said that the benefits of the skill training are as follows:

1. As an additional or supplement to textbooks for skills training

2. Helps to enhance the use of skills.

3. It helps with individual differences.

4. Helps to strengthen the lasting skills by practicing immediately after learning the subject, repeat many times. The practice should focus on the subject that was practiced.

In the section [11], the benefits of skill training are described as follows.

1. It is a device to help reduce the burden of instructors.

2. Help students to improve their skills.

3. It helps with individual differences. Causing students to achieve great mental results

4. Helps to strengthen skills in durability

5. It is a tool to measure grades after learning the lesson.

6. Help students to review lessons by themselves.

7. Help instructors look into problems. Of students clear

8. Allowing students to practice fully In addition to what was learned in the lesson

9. Help learners see their own progress.

However, [12] mentioned the benefits of the skill training as follows:

1. To enhance skills Practice exercises are tools that assist students in practicing their skills, but they require encouragement and attention from their instructors.

2. Helps in the differences between people. Because students have the ability Different language Allowing students to do exercises that are appropriate for their abilities will help students achieve more mental achievement. Therefore, exercise is not a workbook. The more the instructor gives to the students. Chapter by chapter or page by page.

3. It is a unique source of experience for students who need extra help. And it is a valuable aid to instructors to meet the individual needs of the class.

4. Practice exercises help to build lasting skills. The characteristics of training to help achieve this effect are:

4.1 Practice immediately after the student has learned the subject repeatedly.

4.2 Focus only on wrong matters

5. The exercises used will be a tool to measure learning achievement after each lesson.

6. Exercises that are created as a booklet, students can be kept for use as a guide. For further self-review.

7. Having students complete the exercises helps instructors to clearly see the student's hot spots or problems. This will help instructors to improve and solve the problem promptly.

8. Exercises held other than those contained in the textbook. It will help students to practice fully.

9. The training has already been printed. This will help

instructors save both labor and time. In order to always be prepared to create a practice. For the learners, there is no need to spend time copying the practice from textbooks or blackboards. This gives them more time and opportunities to practice various skills.

10. The exercise style saves money. Because the publication is a certain format. It is not necessary to invest less than to use the printing method on wax paper every time. And see their progress in a systematic and orderly manner.

A. The meaning of Practicing

The person who proposed this meaning is [13], who has proposed the meaning of Practicing as follows.

Practicing is the repeated act of behavior that has been learned in order to develop a skill or expertise or a habit, for example when learning mathematical principles or theories. Science already it has to be practiced by doing the exercises, etc. and in the practice should follow the following principles.

1. Begin training when students are ready first.

2. Should take into account the difficulty of the things to be practiced.

3. Define the training period appropriately, not too long or too long.

4. If there is a lot of practice must be divided into periods

5. Students should know the progress in the practice.

B. The good nature of a good skill exercise

By creating a practice exercise to train analytical skills to achieve that objective requires a variety of forms of training. This must be consistent and appropriate for the skills to be practiced. The concept of characteristics and patterns of good skill training which [14] has proposed, the characteristics of a good practice should look like this:

1. Relate to the story that has been learned

2. Suitable for the class level or the age of the students

3. There is a short statement to understand.

4. Use the right time.

5. There are interesting and challenging things to show your abilities.

6. Should have instructions for use.

7. There are limited choices and free answers.

8. If it is a practice that requires students to study by themselves the exercise should be multiple forms.

However, [15] has proposed the following characteristics of a good training model.

1. It should be created to practice what it is teaching. Not a test that students what did you learn?

2. Should be about the structure of what is taught alone.

3. What you practice is what students have already seen.

4. Should be a short message.

5. Do not use too many words.

6. Should be a practice that encourages the child to respond to the desires.

Where [16] said that a good practice should consist of

1. Contain content that matches the purpose

2. Activities suitable for age level or the ability of students

3. The illustrations are well laid out.

4. Spend time appropriate for training.

5. Challenge students' abilities and be able to practice by themselves.

However, [17] said that the instructor or the person creating the exercise should adhere to the following characteristics of good practice.

1. Good exercises should be clear in both instructions and how to do them. The instructions or examples showing the actions used should not be too long. Because it will make it difficult to understand. It should be adjusted to be easy and suitable for the user so that students can study by themselves if desired.

2. Good exercises should be meaningful to learners and meet the purpose of the practice. Little investment, can be used for a long time and be up to date on a regular basis.

3. The language and images used in the exercises should be appropriate for the age and knowledge base of the learners.

4. Good exercises should be separate, individual topics should not be too long. But there should be a variety of activities to stimulate students' interest. And not boring in doing and to practice any skill until mastery.

5. Good exercises should include both the fixed-answer and the free answer. Choosing to use words, texts or pictures in exercises. It should be something that students are familiar with and meet their interests. This is so that the exercises are created to be enjoyable and pleasurable for the user, which is in line with the learning principle that students tend to learn quickly in satisfying actions.

6. Good exercises should give students the opportunity to study by themselves, to learn, to research, to collect common things that they have seen or used themselves. This will enable the students to understand the subject better and will be able to apply that knowledge in their daily life properly and properly. And see that what students practice is meaningful and beneficial to students forever in the future.

7. Good exercises should cater to different students' individual differences. They differ in many areas, such as needs, attention, readiness, intelligence level. And experience, etc. Therefore, each exercise should be sufficiently prepared and available at all levels, from easy to medium to relatively difficult. So that both students are good, middle and weak, can do according to ability. This is for every student to be successful in completing the exercise.

8. Good exercises should be able to excite students' attention from the cover to the last.

9. Good exercises should also be exercises that can be assessed and classified by students.

From studying the characteristics of good training enough to conclude that good exercises should include psychology, proper linguistics, fun practice, awakening interest and meaning in life. Suitable for age and ability and may be able to study by themselves, which the report can be considered as a guideline for preparing the exercise to suit the age Student abilities several elements match the content. Appropriate to the age, time, ability, attention and problem of the learners.

C. A good practice component

The components of a good exercise should include the following documents. [14]

1. Practice Manual It is an important document for the practice of what it is used for and how to use it. Used for home use, repairing, which should consist of

1.1 Components of the exercise how many sets are indicated in this exercise? What and whether there are other components, such as a test or an assessment record.

1.2 What instructors or students must prepare It will tell instructors or students to prepare in advance.

1.3 Purpose of using exercises

1.4 The steps for using each item are listed in order of use and may be written in the form of teaching or lesson plans to be more clear.

1.5 Answers to practice exercises in each set.

2. Practice is a media created for students to practice skills for permanent learning.

2.1 Name of training set in each sub-set

2.2 Purpose

2.3 Instruction

2.4 Example

2.5 Practice sets

2.6 Illustration

2.7 Pre-study test - after study

2.8 Use evaluation form.

In the importance of the exercise, good exercises are essential to improve learners' skills and are an integral part of the Primary Education Curriculum, Year 2521 (Revised Edition 2533) [18] in line with [19] said that exercises are very necessary. Instructors must provide appropriate exercises in order to practice after having learned the content from the textbooks to have extensive knowledge. It can be considered that exercises is one of the teaching materials. Which instructors are able to use in teaching activities very well and helping instructors to teach success and in line with [17] also said that Work book is a teaching medium that is prepared. This is to enable learners to study, understand and practice until they come up with correct concepts and skills in a particular subject. Moreover, the exercises are also used to indicate that the learner or the user of the exercise has knowledge of the lesson and is able to how much of that knowledge can be used Learners have strengths that should be promoted or have weaknesses that need to be improved, where and how good and complete exercises. Therefore, it may be used as a substitute for a diagnostic test for assessing student progress. Exercises can be considered an important tool that all instructors use to examine their cognition and develop students' skills in a range of subjects. Appropriate exercises for each age student contribute to student success. Creating pride that brings joy and pleasure in doing. There is an opportunity to use imagination to develop creativity. On the body side, it will lead to the development of the muscles and the senses from the practice of writing hand gestures, hand gestures.

IV. PERSONAL INCOME TAX

Personal income tax is tax levied on individuals. Or from a special taxation unit as required by law and generate income according to the specified criteria usually stored annually Income generated in any year income earners are obliged to present themselves on the required tax return by January to March of the following year. For some income earners, the law also requires the filing of the form. Tax payable at half year on actual income in the first half of the year. In order to relieve the tax burden that must be paid and in some cases the law requires that the payer acts withholding tax on part of the income paid. So that there is a gradual tax payment while there is income arising as well.

Persons liable to personal income tax are those whose income arising during the past year with One of the following (Section 56 and Section 57) as follows:

1. Natural person.
2. Non-juristic partnership.
3. Those who died during the tax year.
4. The estate that has not yet divided.
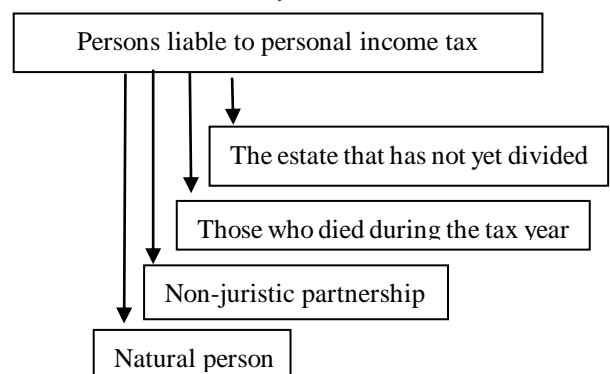
Fig.3 Persons liable to personal income tax

Assessable income is income of the following categories.

1. Income derived from employment, whether in the form of salary, wage, per diem, bonus, bounty, gratuity, pension, house rent allowance, monetary value of rent-free residence provided by an employer, payment of debt liability of an employee made by an employer, or any money, property or benefit derived from employment

2. Income derived from a post or from performance of work, whether in the form of fee, commission, discount, subsidy, meeting allowance, gratuity, bonus, house rent allowance, monetary value of rent-free residence provided by a payer of income, payment of debt liability of a taxpayer made by a payer of income, or any money, property or benefit derived from a post or from performance of work, whether such post or performance of work is permanent or temporary.

3. Fee of goodwill, copyright or any other rights, annuity or annual payment of income derived from a will, any other juristic act, or court decision.

4. Income that is:

(a) Interest on a bond, deposit, debenture, bill, loan whether with or without security, the part of interest on loan after deduction of withholding tax under the law governing petroleum income tax, or the difference between the redemption value and the selling price of a bill or a debt instrument issued by a company or juristic partnership or by any other juristic person and sold for the first time at a price below its redemption value. Such income also includes income assimilated to interest, benefit or other consideration derived from the provision of a loan or from a debt-claim of every kind whether with or without security.

(b) Dividend, share of profits or any other gain derived from a company or juristic partnership, a mutual fund or a financial institution established under a specific law in Thailand for the purpose of providing a loan in order to promote agriculture, commerce or industry; the part of dividend or share of profits after deduction of withholding tax under the law governing petroleum income tax.

For the purpose of income calculation under paragraph 1, if a lawful child who is a minor derives income and the marital status of the parents exists throughout the tax year, the income of the child shall be treated as income of the father. However, if the marital status of the parents does not exist throughout tax year, the income of the child shall be treated as income of the parent who exercises parental power, or of the father if both parents jointly exercise parental power.

The provisions of paragraph 2 shall apply mutatis mutandis to an adopted child who is a minor deriving income.

(c) Bonus paid to a shareholder or partner of a company or juristic partnership;

(d) A decrease of the capital holdings in a company or juristic partnership which does not exceed the total amount of profits and reserves;

(e) An increase of capital holdings in a company or juristic partnership that is determined from the total amount of profits or reserves;

(f) A benefit derived from the amalgamation, acquisition or dissolution of a company or juristic partnership and having the monetary value which exceeds the capital;

(g) Gains derived from transfer of partnership holdings or shares, debentures, bonds, or bills or debt instruments issued by a company or juristic partnership or by any other juristic person.

5. Money or any other gain derived from:

(a) Rent of property,

(b) Breach of a hire-purchase contract,

(c) Breach of an installment sale contract, where the seller regains the property sold without paying back the money or gains already received.

6. Income from liberal professions, namely, laws, arts of healing, engineering, architecture, accounting, fine arts or other liberal professions as prescribed by a Royal Decree;

7. Income derived from a contract of work where the contractor has to provide essential materials besides tools;

8. Income from business, commerce, agriculture, industry, transport or any other activity not specified in (1) - (7).

Categories of assessable income

1. Income derived from employment

2. Income derived from a post or from performance of work

3. Fee of goodwill, copyright or any other rights

4. Income that is interest on a bond, deposit, debenture, bill, loan, dividend, share of profits

5. Money or any other gain derived from Rent of property, Breach of a hire-purchase contract and Breach of an installment sale

6. Income from liberal professions

7. Income derived from a contract of work

8. Income from business, commerce, agriculture, industry, transport or any other activity not specified in (1) - (7)

Fig.4 Categories of assessable income

V. RELATED RESEARCH

It is very important for instructors to acquire knowledge in creating training exercises that will train students' skills to create such exercises as highly effective and suitable for the students. With [20] doing research on Using the skill training On account recording according to the dual accounting system In the financial accounting course For students in the Accounting Division, Vocational Certificate 1, Lanna Polytechnic College of Technology, Chiang Mai, found that students had higher academic achievement in line with the [21] conducting research on Using a skill set to solve the problem of students' lack of skills in recording trade in general ledger Of vocational students in Vocational Year 1/7 of Rayong Commercial School, the first semester of the 2007 academic year, totaled 12 students, found that the students had higher academic achievement and passed the assessment criteria for everyone Creation and development of a practice for enhancing cost accounting skills 1 for vocational students level 1 in accounting Roi Et Vocational College, 38 people. It was found that 30 students from a total of 38 students, representing 81.08 percent, received an examination score of more than 50 percent, and the results of absenteeism after 35 students passed the test, representing 91.89 percent who did not pass the test. 8.11 percent of people. And [22] conducts research on the development of academic achievement in introductory accounting for 2 subjects, recording transactions in general journals of Vocational 1/4 students using the skill training form, Srithana Commercial College

of Technology, Chiang Mai, 20 people found. That students have higher academic achievement And pass all criteria.

From the study of related research making it possible to conclude that using the Pre-School and Post-Study Skill Training Set, you can see how you improve your students. And can do exercises correctly.

CONCLUSION

Using the Pre-School and Post-Study Skill Practice Set, students will be able to learn about the content and practice doing a practice exercise at the same time. Make students better understand the content and be able to practice the skills properly. The skills training appropriate for each age student contributes to the success of the teaching and learning process to the success of the course.

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The Model of Basic Education Curriculum Administration according to Buddhist Principles in Eastern Economic Corridor

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Abstract—The purposes of this research were 1) study the current states of the school curriculum administration 2) to develop
themodel of basic education curriculum administration according to Buddhist principles in Eastern Economic Corridor and 3) to evaluate the model. Quantitative researchand qualitative research were used and research tools were interview form and questionnaires. Data were collected from in-depth interview, focus group discussion and document analysis. Qualitative data from 20 key informants was analyzed by using content analysis whereas quantitative data collected from 265 samples was analyzed by using content analysis, percentage, mean, and standard deviation. Results indicated that1) the current states of the school curriculum administration of basic education institution in Eastern Economic Corridor in 5 variables found that overall it was appropriate at a high level. When considered individually, it was found that there were two most appropriate levels, namely supervision, monitoring and promotion. 2)The results of the model development that consists of 4 parts: 1. Educational curriculum management process consists of three dimensions. 2. The application of Buddhist principles in the school curriculum administration consists of three principles of the Threefold Training. 3. The key players of the school curriculum administration and 4.The 7results of the using of the model. 3) The model evaluation with 4-sided: Utility, Accuracy, Propriety and Feasibility found that the overall were appropriate at the highest level in all aspects. Sorted as follows: The Utility aspect was the highest, followed by the Accuracy, Propriety and Feasibility.

Index Terms—*Curriculum Administration, Threefold principle, Eastern Economic Corridor, EEC*

I. INTRODUCTION

Nowadays, Thai society are adjusting to face a new economic system which business organizations need to adjust both the business face and the model, marketing strategy including the development of personnel in the organization to be prepared to cope with the changes that occur, because people are the key gear in driving business and implementing policies, plans and operational measures of the organization to success. The issue of human resource development has led to the planning of government policy to develop the manpower of the country to accommodate the changing world of the 21st century. And led to the setting up of a development framework on develop the potential of human capital In the 12th National Economic and Social Development Plan (2017-2021) of Thailand which was prepared at the time of the Reformation and the world situation is rapidly changing of the Globalization Stream that linked through a couple of people from all over the world closer together. By the aftermath of advancement in information technology and the world of borderless communication causes the breaking of limitations or boundaries easily cause the influx of one culture to another.[1]

The governmentwas bent on making the philosophy of sufficiency economy for country development. It is also required that the basic education institution is responsible for preparing the contents of the curriculum. It covers the objectives of the provision of basic education, includingthoserelating to problems in the community, society, local wisdom and desirable characteristics for family, community, society andnationbyorganizinga school curriculum that requires the participation of various departments such as administrators, teachers, parents and community in two levels:1) the school operation levelthat includeschool board, program and the academiccommittees and 2) the classroom operation level by the teacher for each class.[2]

When Thailand had been forced into the industrial age country. As countries move into the industrial age of innovation go together that makes government transmuted policy to turn Thailand with pulling investment of industry of the future being located on the area with the industry to be able to expand. Therefore has a policy to develop the Eastern Economic Corridor (EEC) on 3 provinces: Chachoengsao, Chonburi and Rayong which originally was the Eastern Coast Development . [3] To push these three provinces achieve a concrete movement as a pilot area for the development of the special economic zones of the country and to promote the exponential industrial development of the region. [4]

Therefore, the Policy Committee chaired by the Prime Minister approval and the Act Eastern Economic Corridor.

The results of the Act Eastern Economic Corridor would result in both the public and private sectors, the education sector, the business sector and the civil society sector adapt to changing situations, promote the 10 target industries as the New Engine Of Growth which is divided into fiveindustries,the country has the potential to balance the First S- Curves) and with 5 industrial future (the New S-Curves). The key to creating quality human resources to it was "the Education"establishes guidelines for developing countries to enter the Thailand 4.0 needed to reform the education system to adjust the attitude, change the way people think either educational administratorsor Thai society.[5]

Key issues from human capital development and response to development issuesthe Eastern Economic Corridor (EEC) of the education sector was the policyof theboard of the Ministry of Education driven integrationapproachto drive education management to develop manpower in accordance with the needs of the labor market in the future, allowing the country to move towards stability, prosperity and sustainabilityaccording to the20-yearnationalstrategy.[11] And the school-level curriculum still does not meet the needs of qualitymanpower development so Chonburiwas a pilot province for developing a curriculum for employment (ChonburiModel) with some level of success. It is driving towards the development of curriculum that integrates basic education with vocational and higher education to develop a curriculum that integrates education to cover all levels of education with the aim of all educational establishments, all levels, all affiliations to provideeducation to instill learners' knowledge, creating the necessarycompetencies and skills for getting careers and knowledge about entrepreneurial careers in the future.

When studied the preliminary information, it was found that the problem of most school administrators was the schoolcurriculum management responding tothe Eastern EconomicCorridor (EEC). There are different processes and techniques.Some schools have successfully integrating educational curriculum with vocational and higher educationand has a portfolio of award, the school administrators, teachers and students.With some places having such success has also applied the principles of Buddhism in the administration of educational institutions.This is a factor that contributes to the efficiency of operations, administrators, teachers and learners have the competency and characteristics. These are important parts of the operation to be experiencedsuccess in roles and responsibilities.

For the reasons and importance that have been mentioned above, the researcher is therefore interested in developing

the model of basic education curriculum administration according to Buddhist principles in Eastern Economic Corridor as a factor contributing to the management of the school curriculum

and bring the knowledge gained from education to pattern development administration of educational institutions usingBuddhist principlesof basic education institution in Eastern Economic Corridor (EEC).

II. Research Objectives

The objectives of this research article were 1) study the current states of the school curriculum administration 2) to develop the model of basic education curriculum administration according to Buddhist principles in Eastern Economic Corridor and 3) to evaluate the model.

III. Research Methods

A. Research Design

The researchers used a form of research and development of the Mixed Method approach; quantitative research and qualitative research were used and research tools were interview form and questionnaires. Data were collected from in-depth interview, focus group discussion and document analysis. Qualitative data from 20 key informants, who were school directors, was analyzed by using content analysis whereas quantitative data collected from 265 samples was analyzed by using content analysis, percentage, mean, and standard deviation. The process of implementation were consisted of 1) documentary study from primary sourcesincluding Buddhistscriptures [6], and the secondary sources include scripture commentary, researchbooks, articles and other related documents, 2) An area study by interview 20 school directors and using questionnaire for 265 school administrators or academic administrators, 3) Data processing at every stage of the compilation, design and sketch up the model, 4) Focus group discussion with 10 experts, 5) Evaluation the model by distributing questionnaires about Utility, Accuracy, Propriety and Feasibility,6) Improve and present the model to

the experts and peer reviews, and7) Improve over all of the model development, make a report presenting the findings.

B. Research Process

Research process of this research has developed into 4 steps:condition study, model development, model evaluation, and presentation the model. Steps were shown in Fig. 1.
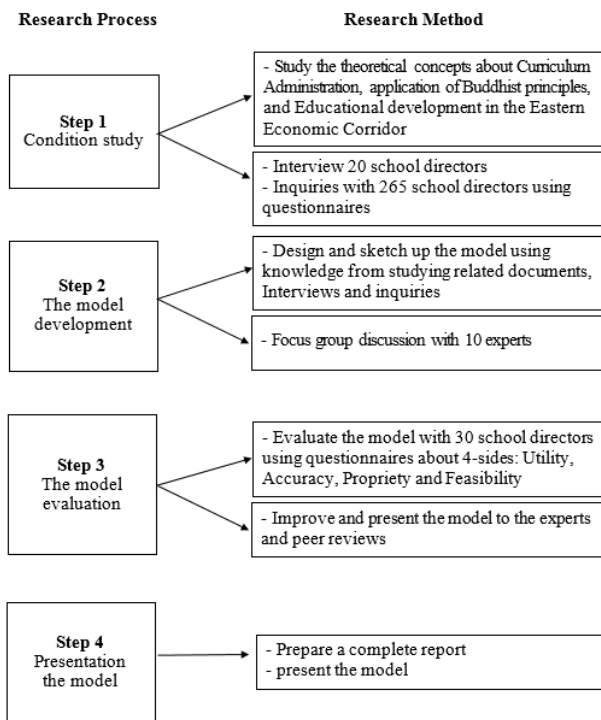
Fig.1 Research process for the model of basic education curriculum administration according to Buddhist principles in EEC

IV. RESULTS

Results indicated that 1) the current states of the school curriculum administration of basic education institution in Eastern Economic Corridor presented as follows:1) the results of in - depth interviews of 20 school directors about the school curriculum administration found that most of the school directors place importance on the school curriculum administration that consist of 5 parts: Promotion and Supporting, Curriculum Planning and Implementation, Curriculum Evaluation andCurriculumimprovement and development, focusing on the administration of the school-level curriculum. There are some meeting for supervision, monitoring and evaluation continuously.The school had applied the Buddhist principles for the curriculum administration: The threefold training (Trisikha), The fourprinciples of theBrahma Vihara Dhamma and the Good Governance. Most of the school directors are of the opinion that theTrisikha principleis appropriate to be used in the school curriculum administration.2) Theresultsof questioning opinions of 265 school directors on the school curriculum administrationfound that 2.1)On the promotion aspect, it wasfound that theoveralllevel was themostappropriate,when considered individually, itwasfound thattherewere two itemsthatwere most appropriate at

the highest level. 2.2) Intermsof planningfor the school curriculum, it was found that theoveralllevel wasappropriate atahighlevel,when considered individually, it was found that there were two itemsthatwere most appropriate at the highest level,2.3)Intermsof the supervision and monitoring found that it is appropriate to a large extent the number 4 deals with the highest mean score for supervision, monitoring and evaluation management curriculum. 2.4)Intermsof theevaluation of the curriculum as a whole has a reasonable level.When considered individually, it was found thatthere was the highest level of suitability in one item. 2.5)Intermsof the improvement and development of the school curriculum as a whole has a reasonable level considering as they found that they are most suitable and cooperative to improve and develop the school curriculum management.

2.The development of the model of basic education curriculum administration in Eastern Economic Corridor following step; Step 1 the Model Formation, drafting a modelthat consisted of 4 aspects: 1) concepts of educational curriculum management process consists of 3 dimensions: Planning and using curriculum, Monitoring and supervision, and Assessment and improvement curriculum. 2) The applicationof Buddhist principles in the school curriculumadministrationusing the Threefold Training consists of three main principles:Morality (Sila), Concentration (Samadhi) and Wisdom (Panya). [7]3) The key players for the school curriculum administration: Administrator or School Director, Instructor or Teacher and Learner or Student.4) The outcomes of use the model consisted of: Higher learning achievement of learners, Occupation and team working skills, Digital Literacy, Language skills, Learning and Innovation skills, Responsibility and Service Mind or Public Consciousness.Step 2 the Focus Group Discussion with 10 experts opine that school curriculum management process. It must be clear that this researchfocuses on administration of the original school curriculum, not the new school curriculum process. So, the researcher updated process management curriculum consists of three dimensions: Planning and using curriculum, Monitoring and supervision, and Assessment and improvement curriculum. The fourth part was revised as a result of the use of the model, consisting of 7 dimensions.

3. The model evaluation result with 4-sided: Utility, Accuracy, Propriety and Feasibility found that the overall were appropriate at the highest level in all aspects. Sorted as follows: The Utility aspect was the highest, followed by the Accuracy, Propriety and Feasibility.

Themodel of basic educationcurriculum administration according to Buddhist principles in Eastern Economic Corridorwas developed from document analysis, condition

studying, focus group discussion, model evaluationthat was effective process for being a factor contributing to the school curriculum administration and bring the knowledge gained from education to pattern and develop the model of basic educationcurriculum administration according to Buddhist principles

in Eastern Economic Corridor (EEC) as shown in Fig.2.
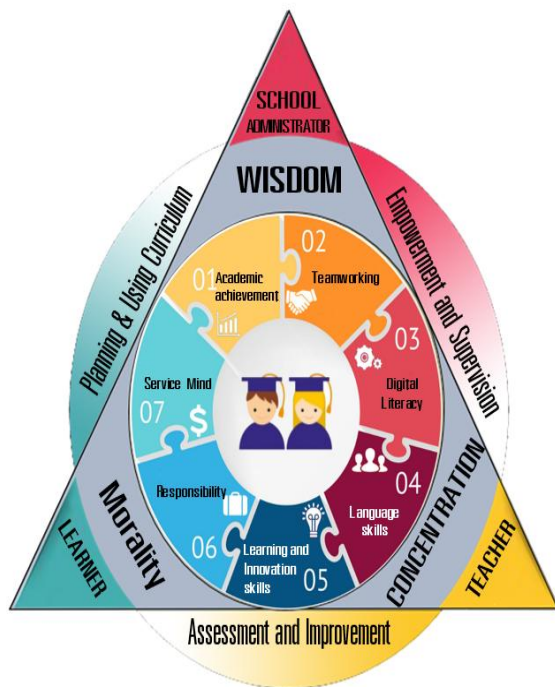
Fig.2themodel of basic education curriculum administration according to Buddhist principles in Eastern Economic Corridor

From Fig.2 can be explained to the model of basic education curriculum administration according to Buddhist principles in Eastern Economic Corridor that consisted of 4 aspects. The first aspect is concepts of educational curriculum management process consists of 3 dimensions: 1)Planning and using curriculum

2) Monitoring and supervision 3) Assessment and improvementcurriculum. The second aspect is the application of Buddhist principles in the school curriculumadministration using

the Threefold Training consists of three main principles: Morality (Sila),Concentration (Samadhi) and Wisdom (Panya). [8]The third aspect is the key players for the school curriculum administration: Administrator or School Director, Instructor or Teacher and Learner or Student.The fourth aspect is the outcomes of use the model consisted of: Higher learning achievement of learners,Occupation and teamworking skills,Digital Literacy,Language skills, Learning and Innovation skills, Responsibility and Service Mind or Public Consciousness.

V. Discussions

The results indicated that

1) The condition study of the school curriculum administration of basic education institution in Eastern Economic Corridor presented as follows:1) The results of in - depth interviews of 20 school directors about the school curriculum administration found that most of the school directors place importance on the school curriculum administration that consist of 5 parts: Promotion and Supporting, Curriculum Planning and Implementation, Curriculum Evaluation and Curriculum Improvement and Development, focusing on the administration of the school-level curriculum. There are some meeting for supervision, monitoring and evaluation continuously. The school hadapplied the Buddhist principles for the curriculum administration:The threefold training (Trisikha), The four principles of the BrahmaVihara Dhamma and the Good Governance. Most of the school directors are of the opinion that the Trisikha principle is appropriate to be used in the school curriculum administration.which is in line with Thaweesak Thongthip, who said that the administration of the school according to this Trisikha principle has 4 important components;First of all, the factor of determination must be obtained or created first. When the factor of attitudes is fully formed, then the next factor is created. When the attitudes are established, the management process according to the three – sided principle can be carried out. Once the management process has been carried out according to the threefold training principle Then measure the results and assess the results of the management process according to the threefold principle In order to use the results obtained from the measurement and evaluation for improvement and development Administration of educational institutions for

the further better.[9] 2) Theresultsof questioning opinions of265 school directors on the school curriculum administration found that 2.1)On the promotion aspect, it was found that the overall level was the mostappropriate, when considered individually, it was found that there were two items that were most appropriate at the highest level, which are aligned with Mariam Nilpan and other said that the educational establishment is not comprehensive and unclear. Some elements are too many details. Teachers lack understanding of the teaching and learning design process based on the standard of teachingand learning without diversity, lack of knowledge of measurementand evaluation,unable to analyze learning standards/ indicators which leads to ineffective assessment of the use of the curriculum. Teachers and Staff lack of engagement and follow-up. Therefore, the management of the curriculum should focus on involving the school personnel in the preparation of the curriculum, should be supervised and monitored to assist teachers in learning and evaluation process.[10]2.2) Intermsof planning for the school curriculum, it was found that theoveralllevel was appropriate at the highest level,is the executive awareness to

the personnel of the institutions issue and stakeholders realize the importance of working together to manage the school curriculum issue because school administrators mostly administrated through collaboration and be aimed at raising awareness together for teachers and educational cooperation section deals with the average. The lowest is to promote public relations to students,parents, communities, agencies / organizations in all communities,according to this with ChuchatPuangsomjit said that public relations to build relationships with this community, schools should focus on every element of public relations: 1) the content of what is publicized, 2) the method of publicity, and 3) the mediaused by the authors of the opinion that the content with public relations power is best "Quality Education", which can be seen from the quality of the learner that is acceptable to the community, so the school should focus on improvingthe quality of education as the main material in the publicity of the school.[11]2.3)Intermsof thesupervision and monitoringfound that it is appropriate to a large extent the number 4 deals with the highest mean score for supervision, monitoring and evaluation management curriculum. This in line with UbonratChunhaphan, the study found that the morale on the performance of the teacher's attention remuneration and benefits is moderate.[12] 2.4)Intermsof the evaluation of the curriculum, it was found that the item with the highest average was system planning and curriculum evaluation. There is a clear continuation in the school because there are have regular meetings and school director has supervision, monitoring and evaluation on basis, in line with Alisa Suebsing, who found that the most common school curriculum management problems, namely, teachers did not meet the student numbers. Learning management is not a major andhas a lot of workloads in addition to learning management.[13]

2.5) In terms of the improvement and development of the school curriculum as a whole has a reasonable level considering as they found that they are most suitable and cooperative to improve and develop the school curriculum management.The first two items found that they are suitable for

most information technology schools to improve and develop

the curriculum because the school has prepared information material information for use in the management of technology.Applied to the social situation. Administrators of many school are young executives who knowledgeable andinterested in technology. Therefore, used in school curriculum administration as well. In addition, school administrators should have a working system that will help staff in networks can work and learners can learn more effectively. Problem solving with new innovationswith regard to the achievement of the vision and strategy of the school network, in line with JirapatMahawong, the study found that the experts are of the opinion that the school's

academic cooperation network management model is suitable at a high level.[14]

2) The development of the model of basic education curriculum administration in Eastern Economic Corridor following step; Step 1 The Model Formation, drafting a model that consisted of 4 aspects.Step 2 The Focus Group Discussion with 10 experts opine that school curriculum management process. The experts assigned the researcher make it clear that this research focuses on administration of the original school curriculum, not the new school curriculum process. So, it be updated the process of management curriculum consists of three dimensions: Planning and using curriculum, Monitoring and supervision, and Assessment and improvement curriculum. The fourth part was revised as a result of the use of the model, consisting of 7 dimensions.Because it might confuse the reader between the curriculum creation experience and effective use of the original curriculum. To make more consistent and clear, the researcher then draws on the improved design draft to obtain suggestions from an advisor and adjust the model to be suitable even further.

3. The model evaluation result with 4-sided: Utility, Accuracy, Propriety and Feasibility found that the overall were appropriate at the highest level in all aspects. Sorted as follows: The Utility aspect was the highest, followed by the Accuracy, Propriety and Feasibility. Resulting in a suitable format. It is in line with the context of the Eastern Economic Corridor (EEC). In addition, it has been improved according to the recommendations of experts who have extensive knowledge, expertise and experience, thus beneficial to education in the Eastern Economic Corridor. This would lead to quality education in the future. The appropriate level is

the possibility because management model curriculum based on Buddhist principles of basic education. In the Eastern Economic Corridor. It has not been tested in educational institutes and has not been seriously evaluated on the use of the model. Therefore still does not reflect the clear image. It was appropriate at the highest level after evaluating by the experts who are school directors.

VI. RECOMMENDATIONS

A. Recommendations for Practices

1. The process of basic education curriculum administration be able to add additional elements from 3 aspects: curriculum planning, supervision and monitoring, and the curriculum evaluation and improvement.

2. The application of Buddhist principles in curriculum administration of the basic education have to integrate with the Tree fold path principle with other principles as well.

3. The person who responds for the process of the school curriculum administration may provide broader

support   to the stakeholders and network.

4. The results according to the focus affiliation in case of the Office of the Basic Education Commission or the Educational Service Area has a specific policy for more than 7 issues, it may be added or if any issue is not necessary, it may be reduced.

B. Recommendations for Further Research

1.The factors affecting theeducational curriculum administration of the basic school according to Buddhist principles in Eastern Economic Corridor is interesting point.

2.There is a research study to follow upto expand the format of educational institution curriculum administrationaccording to Buddhist principles in Eastern Economic Corridor integrates both basic education and vocational and higher.

3. There should be research in conjunction with project evaluation of educational institutions about the application of Buddhist principles in the curriculum administration of the educational institutions at the provincial level,region, and cluster level.

CONCLUSION

In conclusion, the findings from the analysis of both quantitative and qualitative showed that the current states of the school curriculum administration of basic education institution in Eastern Economic Corridor in 5 variables found that overall it was appropriate at a high level. When considered individually, it was found that there were two most appropriate levels, namely supervision, monitoring and promotion. 2)The results of the model development that consists of 4 parts: 1. Educational curriculum management process consists of three dimensions. 2. The application of Buddhist principles in the administration of the school curriculum consists of three principles. 3. The key players of the school curriculum administration and 4.The 7 outcomes of use the model. 3) The model evaluation with 4-sided: Utility, Accuracy, Propriety and Feasibility found that the overall were appropriate at the highest level in all aspects.

The model was effective process and useful in terms of creating new knowledge for school administrators, teachers and educational personnel, especially application of Buddhist principles to curriculum administration and school management Causing the school administrators to introduce Buddhist principles to schools and networks.

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Educational Administration: Concept, Theory and Management

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Abstract— The objectives of this research were: 1) to study the concepts and theories of educational administration, 2) to study the model of educational management, and 3) to analyze the theoretical tendency and the educational management model in practice. The primary data were collected from the Tipitaka in Thai version of Mahachulalongkornrajavidyalaya University and Commentaries. The secondary data were collected from Buddhist documents, educational administration, and interviews with 10key informants. The collected data were analyzed by content analysis. The research results indicated that: 1) the concepts and theories concerning academic affairs, teaching and learning management and evaluation by information technology, personnel management are an important part to drive the organization into effectiveness by setting job channel and description, and personnel development in virtue and knowledge. The budget is a factor to make the organization achieve its goal. The institutional environment is to support the management and work performance effectively. Furthermore, the participation in educational administration is a key factor to push the operation according to policy and plan. 2) The educational management model based on the Ministry of Education consisted of 4 aspects; Academic management, Budget management, Personnel, and General administration with stability and relevant to the 20-Year National Strategy and Thailand 4.0, by development and empowerment of potential, opportunity, equality of people, and enhancing people's quality of life with eco-friendly system, and educational system and management development. 3) The analysis of theoretical trends and educational management models into practice in 4 aspects; academic affairs, budget, personnel, and general management in practice is to strengthen the stability and reconciliation relevant to modern administration system with innovation and social network by using the educational administration in the digital age integrated with Buddhist principles to become a professional administrator in the present situation.

Index Terms— *Educational Administration, Concept and Theory, Management.*

I. INTRODUCTION

Education reform is an important way to change education to be good and qualified education. The key tool for Thai education reform is The National Education Act (No. 3), 2010. It is the first time that a national education policy has become an act. This is an important change in concept, structure and process with a commitment to raise the quality of Thai education and the quality of the Thai people as a whole [1]

Educational administration is essential to improving the quality of education in schools, institutions and nation. Management is an important thing that is absolutely necessary. It is an indication of the quality of the school in the field of educating students as a guideline for educational administration of administrators. To develop personnel in education and educational institutions to be efficient and effective which administration consistent with the concept of Phradharmakosajarn (Prayoon Dhammacitto) "Administration" is running a business successfully in collaboration with others, whether it is an enterprise for business benefits, government affairs or family affairs. They are under the same principle.

Therefore, management is concerned with all businesses by operating with others, having both external and internal elements, and Wiroj Sararatana said that "administration" corresponds to the English word "Administration", which means being a person administration of a particular organization or any one department. While Massie & Douglas has mentioned that management is both artistic and professional, which are as follows [2]

1. In the case of art, it refers to the skills and knowledge that each person has developed in order to achieve a particular goal with the skills and knowledge developed. This may result from training or working with other people who have expertise or have developed their managerial skills, like a musician or painter who has been

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trained or learned from a skilled or highly skilled musician or painter.

2. In the case of science, it means the body of knowledge arising from the search for new knowledge with a scientific method. Information is collected by hypothesis and hypothesis testing, etc. As in the past century, new knowledge has been developed. Giving rise to many theories of administration which administrators can apply in combination with the "art" that has developed in each person. In simple terms, Art is a matter of action training for expertise. The science is about knowledge. Art is doing, and science is knowing what and how to do.

3. In the case of a profession, it arises from both the art and the science with the criteria showing the professionalism of having knowledge in that profession systematically by the person in that profession. It must always be intellectually developed, and needs attitudes for change. We are constantly searching for new ideas, focusing on serving others, requiring ethical principles that money is not a critical measure of professional success, and the professional standards established by professional associations are recognized, trained, and cultivate attitudes and values towards that profession.

The management of the organization is very necessary to require executives with knowledge of management including concepts, theories, and principles that promote effective management. If the management does not have knowledge of concepts, theories and Buddhist principles, the administration of the school, organization, and the nation's institution will not be successful, not being successful in good management. In Buddhism, there is a principle that can be applied to the principles of administration.

That is the principles of service (Sangahavatthu:). The Buddha has spoken of the 4 Sangahavatthu to monks. Sangahavatthu means principles of the care for each other, They are 1.Giving (Dàna), 2.Kindly speech(Piyavàcà), 3. Useful conduct (Atthacariyà), and 4. Participation and behaving oneself properly in all circumstances (Samànattatà). These are 4 things and giving, beloving, the existential in this world and Sangahavatthu in such dhamma as appropriate, like a wedge that holds a car that can run. Even if parents do not have good morals, children will not respect them. But parents are always benefactors for their children for a wise man praises and respect a great parents. [3]

Therefore, the researcher shows that educational administration: concepts, theories, and management model are important for corporate executives in applying the concepts, theories and good management model. It contains the principles of Buddhism and can be applied in management to make the organization more successful and progressive

II. RESEARCH OBJECTIVES

1. To study concepts of educational administration theory

2. To study a model of educational administration

3. To analyze theoretical trends and models of educational administration into practice

III. RESEARCH METHODS

A. Research Design

The research model is qualitative. It is documentary study and collecting data from documents and evidence related to the theoretical concepts about education, research books

B. Research Process

The research Process as follows:

1. Study and collect information from documents and related evidence, books, meeting minutes, Buddhist principles and other documents based on the concept and theories about educational administration,

2. Study and research related scriptures and Buddhist books for integration with educational administration,

3. Study and analyze concepts, theories about educational administration and integrated Buddhist principles,

4. Summary of educational administration models with integrated principles of Buddhism, and

5. Interviewing, Informal Interview from a group of 10 academics and Buddhist experts and focus group discussion with 8 persons consisting of monks and laymen who have knowledge of educational administration.

C. Data collection

The researcher has collected information from the following documents:

1. Study from the related research papers in order to get information about educational administration: concepts, theories and models of management,

2. Study information from the qualitative research papers on Educational Administration: Concepts, Theories, and Management Models,

3. Field Study, the method of interviewing and group discussion were used to collect truthful information as much as possible, and

4. Data preparation follows the following steps;

1) Data preparation, questionnaire, interview and group discussion, recording by media,

2) Bring the recorded information to summarize in each issue and categorized to find answers according to the content of research,

3) data analysis

Researchers have taken information from interviews and group discussions and organize a recording of descriptive in order to use the data for analysis and create new knowledge. The analysis of the results of this study is based on theoretical analysis of Supang Chanthawanit,

4) Analytic induction, which is a method to summarize data according to sensible or visible phenomena, etc. and

5) Data analysis by analyzing documents in educational administration: concepts, theories and models of management in four areas: academic administration model, human resource management model, budget management model, and general management model.

5. Analyze data, documents in the Tripitaka and books on educational administration: concepts, theories and models of management.

1) Invite 8 experts in educational administration and Buddhism for group discussions,

2) An interview with 10 experts in educational administration and Buddhism

RESEARCH FINDINGS AND DICUSSIONS.

The concept and theory of educational administration were as follows:

1) Theoretical trend of academic administration into practice

1.1 Planning of academic work, it is a plan about curriculum development and course implementation. Pre-management about teaching and learning tend to plan about academic work into practice by strengthening the stability of the main institutions and inducing royal wishes and royal currents in education, curriculum development, teaching subjects with historical and monarchical subjects, to develop teaching and learning processes for reconciliation, such as friend support activities and elevate English subjects to support Thailand 4.0

1.2 Organization of work related to teaching and learning to make teaching by doing well and can be practiced in educational institution. Therefore, there must be an instructional management. There is a trend towards teaching and learning operations into practice, learning innovation quality and standard, develop quality and production standards for teachers and educational personnel, and develop the qualifications of teachers and educational personnel.

1.3 Organizations of teaching and learning are a facility and promotion of curriculum and educational programs for efficiency and quality. There is a trend of teaching and learning management into practice, development of educational management to strengthen the stability of the national core institutions, democratic government with the King as head of state, enhance the quality and promote access to education in special development zones, and upgrade quality and promote access to education in special areas.

1.4 Measurement and evaluation process to be used as a tool for reviewing and analyzing academic results. In line with the current educational reforms that focus on measurement and evaluation with information technology systems, ICT reforms for education. Developing the internet system and high speed internet database system is in line with Chomkhae Pongcharoen's research on "Development of a creative and productive school management model in Thailand", which concluded that evaluation of feasibility and feasibility of experts on the subject of developing creative and productive school management models in Thailand. In the origin of the form, the layout elements are appropriate at a high level. (The average value was 4.00 and 3.83, respectively). The conditions and the use of the model were at a moderate level (Mean value of 3.50) for the feasibility of the creative and productive school management model in Thailand. According to expert assessment, it was found that the origin of the model and the composition of the format was appropriate at a high level. (The average was 3.67 and 3.80, respectively). The conditions and the use of the model were at a moderate level. (Mean value is 3.20) [4]

2) Theoretical trends in academic administration into practice

Personnel management is an important part that drives the organization's efficiency by personnel management. Executives must focus on the personnel in the organization, namely,

2.1 The duties and responsibilities of personnel are clearly defined, that is, the operators know the roles, duties, responsibilities and performance goals, both quantitative and qualitative, to be expected from them. It is in line with the current education reform production and development of manpower to increase competitiveness. It is the production and development of people to meet the needs of the national development and carry out a major project including adjusting the competency assessment system that reflects the efficiency of learning management. Teaching and student quality development are important.

2.2 The human resource management process is clear and acknowledged by all personnel of the organization. It is in line with the current education reform. Teacher reform has undertaken many important projects. There is a clear trend in the personnel management process and teacher potential development, especially English for executive quality development.

2.3 Focus on work quality from personnel for the benefit of the people and government agencies that have a focus mainly on the social performance goals. In pursuit of this goal, the value of the remuneration that the state gives to workers is measured by the beneficial results of the target and it tends to focus on quality results from personnel to practice by organizing a teacher training course in connection with obtaining academic qualifications and obtaining a teaching professional license.

2.4 To emphasize the principle of virtue, consistency, no prejudice, unselfishness, emphasis on the principle of adherence to work, this principle takes knowledge, competence, self-behavior and performance as a measure of merit without feeling or personal knowledge determines in line with education reform management reform. The management system has been adjusted in several areas as follows: Development of educational management in the form of partnership school by integrating digital technology for education to be used for mutual benefit in both infrastructure and network systems, information system for education, media and knowledge.

3) Theoretical trends in budget management into practice.

Budget is a part of promoting organizational management to be efficient and successful in all aspects of the organization's management. Budget management is something that executives have to pay attention to and prevent mistakes because it is a matter of the survival of the organization as follows;

3.1 Preparation of budget; preparation in both income budget and expenditure budget in budget preparation process. There is a trend in preparing the budget for practice, including improving the educational administration structure and increasing the efficiency of school management.

3.2 Approval of budget consideration that the agency proposed by the authorized person to approve the budget. He has the power to analyze, cut and modify the budget but it must be within the proposed budget limit and having tendency to prepare budget into action.

4) Budget expenditure control management in accordance with budget approved work plans and projects in order to prevent leakage by controlling disbursement.

The audit is made according to the regulations set by the organization. There is a trend of budget management into action.

5) Theoretical trends of general administration into practice as follows;

5.1 Environment

The institutional environment plays an important role in supporting the efficient and effective teaching and learning and operation of the educational institution by creating a good atmosphere or an open atmosphere. It is an atmosphere of cooperation and mutual respect, i.e. trust and considerate, to have satisfaction in work and unobstructed. Everyone has a sense of belonging and has good morale at work. This type of atmosphere is classified as desirable atmosphere.

There is a tendency to favorable or open atmospheres to practice as follows; organizing physical environments, such as physical environments and school grounds, school buildings, buildings, classrooms, assembly rooms, equipment and materials. Academic environment includes teaching and learning atmosphere both inside and outside the classroom as well as providing services.

5.2 Participation in educational administration

Participation in educational administration is an opportunity for those who are involved to take part in education management in order to develop learners to be effective with tangible results. It is consistent with the research of Duangduen Phanthumnawin on "The finding of important hypotheses of leadership [5] satisfaction according to Fieldale theory from concrete studies in Thailand". It was found that "Thailand's leadership will be satisfied depending on the popularity of the majority even though those leaders would not do much benefit for them. One interesting thing in Thailand is that a leader who is popular with most people is a quality leader. The good qualities of a leader include important psychological and behavioral attributes. But Fieldler's theory will only support Thai leaders with good psychological personality. "

4.2   Educational management model

Ministry of Education has defined the scope of the administration of the school into 4 groups, namely academic administration, budget management, personnel management and general administration. In accordance with the current Minister of Education, it provided a policy for operating guidelines. And important projects of the Ministry of Education are based on the National Strategy Framework; To build stability, Develop manpower and build competitiveness, Develop and empower people, Curriculum development, Teaching and learning process, Measuring and evaluating the production results,

developing teachers, faculty and educational personnel, creating opportunities for equality and reducing educational disparities, Create opportunities and equality in education by enhancing educational quality, Increase educational opportunities through digital technology, organize a system for admission to university (Admission), to enhance the quality of life of citizens environmentally friendly, Curriculum development, Teaching and learning process, develop systems and management, Management system development on the law to improve the personnel management system of government teachers and educational personnel, and Establishment of the Ministry of Higher Education. That is clearly concrete in area policy driving to manage large schools and small schools.[6]

4.3 Analyze theoretical trends and educational administration models into practice

1) Trends in academic administration towards implementation of the Buddhist Integration Principle

By strengthening the stability of the main institutions by inducing royal wishes and royal currents in education curriculum development, teaching subjects with historical and monarchical subjects, Develop teaching and learning processes for reconciliation, such as friend support activities for upgrading English language courses to support Thailand 4.0 by integrating Buddhadhamma principles together with practice guidelines, namely wisdom resulting from study, wisdom resulting from reflections, wisdom resulting from mental development to integrate academic administration, namely Wisdom refers to knowledge and understanding that arises from listening, reading, speaking, learning, and creating wisdom. That affects learning, including external factors, including manuals, textbooks, places, environment, knowledge, etc. Wisdom refers to cognition that causes intelligence from thinking for innovative approaches or activities that promote or create the rise of a process in analyzing and synthesizing information rationally and critically. wisdom refers to knowledge and understanding that produces wisdom from practice. Practice is activity that allows learners to perform and gain knowledge and understanding by oneself.[7]

2) Trends in human resource management to the practice of the Buddhist integration

To develop a production system and develop teacher quality and have a spirit of being a teacher, it focuses on teachers to have qualifications in accordance with the subjects taught and bring appropriate information technology and tools to teaching as a tool to assist teachers or for self-learning such as distance learning, E-learning system, etc., as well as revising the performance assessment system that reflects the efficiency of learning management.

Teaching and student quality development are important. Organizing a teacher production project for local development is given to the Office of the Basic Education Commission and the Office of the Vocational Education. Commission is the main agency conducting teacher recruiting (production, recruiting model appointment follow-up with development) and providing opportunities for smart people to become teachers.

In the personnel management in the 21st century, administrators have to formulate policies, annual human resource development plan and follow the plan clearly, and apply it with the 4 principles of influence which is the ladder of success in all operations; 1) Chanda: pleasure with the management, co-thinking, joint planning, 2) Viriya: Perseverance does not give up in the undertaking of such activities by practicing tirelessly, 3) Citta: cares not to be engaged in that matter by working together to decide to follow the plan correctly and appropriately, and 4) Vimamsa: must continue to work. The four successful ladders mentioned herein are the most important because they are joint consideration, follow up on the work done and solving the problems that arise during the work. Together to think, develop, improve, and work better in order to obtain benefit from the management for success and sustainable development.[8]

3) Trend of budget management towards implementation of the integrated Buddhist principles

Money management involves a high level of risk, and the management must consist of understand and comply with the rules and regulations. The management must have budget planning, set productivity and cost calculations, organize a procurement system, financial management and budget control, financial reports and performance asset management and internal audit. Schools must have a department responsible for internal auditing. There is freedom to operate, have clear duties and responsibilities on financial audits and results by applying the principles of the use of property in Buddhism. The principles gave the concept of the use of property and earned money. In Buddhism, the treasures obtained are allocated into 5 parts: 1. Raising oneself, raising mother, father, children, and wife to be happy, 2. Nourish friends and the associates to be happy, 3. Use to protect and maintain welfare to make oneself stable and safe from danger, and 4. To make sacrifices, meaning sacrifice to nurture and worship 5 things.

4) Trends of general administration to the implementation of the Buddhist Integration Principle

To provide physical environment, such as school area, school building, assembly building, classroom,

assembly room, equipment and materials. Academic environment includes teaching and learning environment, both inside and outside the classroom as well as providing services to promote various academic and supporting by setting up an environment in Buddhism. It helps to support the practice of meditation to be effective. It helps concentrate on staying firm and promoting learning in the organization, such as avasa sappaya means a suitable abode, for example, it is not crowded, orbiting, Sappaya means suitable of the area, not too close, not too far. Bhassa sappaya means a suitable speech, like being with the body support for health apparently. Utu sappaya refers to the suitable climate and the environment that are suitable, such as not too cold, not too hot, etc. Iriyapatha sappaya means the suitable posture.[9]

Participation in educational administration into practice include curriculum development, teaching and learning process measurement and evaluation, production, development of teachers, faculty and educational personnel strategy for production and development of manpower. It includes research that is consistent with the needs of national development strategies to expand access to educational services and life-long learning. The administration has been integrated with the principles of Buddhism, called Saraniyadhamma. Dhamma is the location of remembrance of each other. It is considered that the Dhamma is the power to create harmony. There are 6 principles: to be amiable in deed, to be amiable in words, to be amiable in thought, to share lawful gains, to keep without blemish the rules of conduct, and to be endowed with right views. [10]

RECOMMENDATIONS

A. Recommendations for Practices

Educational Administration: Concepts, Theories, and Models of Management by Academic Administration, According to the national education plan by strengthening the stability of the main institutions inducing royal wishes and royal currents in education curriculum development, teaching subjects with historical and monarchical subjects, develop teaching and learning processes for reconciliation, such as friend support activities, enhance the level of English language to support Thailand 4.0, support people of all ages, knowledge and development of quality of life appropriately.

Personnel management according to the power rate plan; Develop a production system and develop quality teachers and have a spirit of teacherhood, a focus on teachers to have qualifications in accordance with the subjects taught, bring appropriate information technology

and tools to teaching and as a tool to assist teachers or for self-learning such as distance learning, E-learning system, etc., as well as revising the performance assessment system that reflects the efficiency of learning management, and importance of teaching and student quality development.

In budget management, transparency, accountability, improvement of educational administration structure, to increase the efficiency of school management, promote the participation of all sectors in the provision of education, and improve the laws about the financial system for education that affects the quality and efficiency of educational administration. Budget is planned, productivity is set up and cost calculation is done, and procurement system is organized. In financial management and budget control, there are financial reports and performance asset management and internal audit. Once the budget has been obtained, the budget is allocated correctly, transparently and can be examined; offering monks.

The general administration with the community tends to participate in educational administration into practice, including curriculum development, teaching and learning process, measurement and evaluation, production, development of teachers, faculty and educational personnel strategy for production and development of manpower including research. That is consistent with the needs of national development encouraging to follow the Saraniya Dhamma principles, including creating unity, to be helpful and supportive, do not bully and hurt others, have good, polite, and sweet words, do not think malicious and vengeful, sharing, not taking advantage of each other, and together to think, solve problems and gain mutual benefits.

B. Recommendations for Further Research

1. Study on the integration of educational administration with Buddhist principles in their application in school administration.

2. A study of Buddhist methods of administration into the practice of educational institutions in the era of Thailand 4.0.

CONCLUSION

It can be concluded that academic administration according to the national education plan by strengthening the stability of the main institutions induce royal wishes and royal currents in education curriculum development teaching subjects with historical and monarchy subjects develop teaching and learning processes for harmony and harmony. Personnel management according to the power rate plan develop a production system and develop quality teachers and have a spirit of being a teacher. They should be focus on teachers to have qualifications in accordance with the subjects taught, bring appropriate information

technology and tools to teach and teach as a tool to assist teachers or for self-learning, budget management, transparency, accountability, improvement of educational administration structure. The general administration with the community tends to participate in the administration of education into action to help and support others. Do not bully and hurt others, have good words, polite, sweet, do not think malicious and vengeful, sharing, not taking advantage of each other and together to think, solve problems and gain mutual benefits.

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Socio- Political Education and Women Empowerment in Buddhist Perspective

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Abstract -The purpose of research was to study the socio-political education and women empowerment in Buddhist perspective. The researchers studied and collected the data from Buddhist scriptures, texts, and related document about socio-political education and women empowerment in Buddhist perspective and analyzed by using content analysis.The results indicated that For decades, women have been parts of the supply of cheap, unskilled or semi-skilled labors for the industrial and service sectors. Gender discrimination continues even in the present times. At the same time, the problems of rural and urban lower-class women cannot be ignored.The empowerment of women is one of the solutions to the problems of inequality, subordination and marginalization that women face in the society. However, this kind of empowerment is only partial for all though they have economic and political power, they are kept out of decision making or they are dependent on their husband, father or brother for crucial decisions.Buddhism accepts that every human being, independent of the consideration of sex, gender, class etc. is composed of five elements (Paṇcakkhandhā): namely rupa skandha, samjña skandha, vedanā skandha, saṁskāra skandha and vijṇanā skandha. On this basis, Buddhism has advocated the equality between man and women and thus has transcended the gender difference. It treats man and woman equally.Buddhism reflected in the Buddhist scriptures that there is a biological difference between women and men, but they have similar intellectual, mental as well as spiritual capabilities.

Index Terms-Buddhist Perspective, Empowerment, Socio-Political Education.

I.INTRODUCTION

The increasing influence and relevance of Buddhism in its various forms in the global society of the 21ˢᵗ century have given rise to a vibrant and evolving movement. In the field of gender and development, an understanding of the influence that religious and cultural traditions have upon women's social status or economic opportunity is slowly being recognized as an important factor in the pursuit of female empowerment in developing countries. While institutional religion can legitimize values and rules that disempower women, the importance of religion in the lives of millions of poor women across the globe means that secular feminism is often perceived not only as western but also as lacking cultural relevance[1] .Over the last few decades Buddhism, environmentalism, the ecological movement and feminism have been the subject of much interdisciplinary work. Buddhist philosophy, ethics and its system of meditation have found common ground with the movements known as Eco-Buddhism and deep ecology with the core acknowledgement of the interrelatedness of all beings and their intrinsic value for the health and survival of the planet and all its inhabitants. The increasing influence and relevance of Buddhism in a global society have given rise to a vibrant and evolving movement, particularly in the west, loosely called Socially Engaged Buddhism. Today many looks to Buddhism for an answer to one of the most crucial issues of all time–eradicating discrimination against women. There is general agreement that Buddhism does not have a reformist agenda or an explicit feminist theory. The researchers explored this issue from a Theravāda Buddhist perspective using the scriptures as well as recent work by Buddhist scholars conceding that there are deep seated patriarchal and even misogynistic elements reflected in the ambivalence towards women in the Pāli Canon and bias in the socio-cultural and institutionalized practices that persist to date in Theravāda Buddhist countries. However, Buddha's acceptance of a female monastic order and above all his unequivocal affirmation of their equality in intellectual and spiritual abilities in achieving the highest goals clearly establish a positive stance. While social and legal reforms are essential, it is meditation that ultimately uproots the innate conditioning of both the oppressors and the oppressed as the Dhamma at its pristine and

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transformative core is genderless[2]. However, compared to the other major religions, the women have always played a significant role in Buddhism as lay disciples as well as monastics later on influencing the Order and societies where Buddhism took root [3]. Dewaraja also notes that unlike in the other major religions, marriage is a purely secular matter in Buddhism, and also cites the Sigalovāda Sutta where the marital relationship is described as a reciprocal one with mutual obligations, and as there is no central creator in Buddhism and hence no sacredness attached to the human body [4] nor a strong differentiation of what is natural or unnatural, Buddhism has nothing against contraception[5][6] or homosexuality .Most of all, the mere fact of women being included in the teachings and practices was remarkable given that this took place over 2,500 years ago in a patriarchal society where women had few rights with regard to education and religious practices as Buddhism's greatest contribution to the social and political landscape of ancient India is the radical. All men and women, regardless of their caste, origins, or status, have equal spiritual worth[7]. This is especially pertinent concerning the status of women, who were traditionally prevented by the brāhmanas from performing religious rites and studying the sacred texts of the Vedas. A core positive characteristic of Buddhism with regard to gender equality is the absence of an omnipotent Creator God traditionally portrayed as a male at its centre providing legitimacy to male supremacy. While the main agenda of Buddhism is not social reform, its ethical, doctrinal and psychological frameworks explicitly condemn creating mental or physical suffering for any other being, and the key concepts that suffuse the Dhamma are harmlessness (ahimsā), mettā (universal loving kindness) and compassion (karunā). Buddhism becomes an increasingly relevant globalized force with the scriptures of all schools available freely to so many and both lay and monastic women taking on key roles, it is inevitable that outdated prejudice and barriers begin to crumble which is essential for the flourishing of Buddhism in the 21ˢᵗ century. The Buddhist perspective on empowerment has efficiently provided possible solutions for these problems. For example, the ambivalent attitude of women to other women and also the societal ignorance about the capacities of a woman needs to be removed. Buddha's teaching offers the methods of practical solutions to all housewives and nuns and also to the society of modern times. The perspective into Buddhism will enable the society to remove the ignorance towards women and rekindle the spirit of wisdom towards the roles and responsibilities of women.

II. RESEARCH OBJECTIVE

The purpose of research was to study the socio-political education and women empowerment in Buddhist perspective.

III. RESEARCH METHODOLOGY

The researchers attempted to study and analyzed from the Pālī Buddhist literatures which are the primary sources together with the commentaries of related works. In addition to the Buddhist literature, the literature on feminism and gender studies have also been considered to understand the concept of empowerment. Also the researchers studied and analyzed from Pālī Tripitakas, Nikāyas, and commentaries.

IV. RESULTS

A. Women in Buddhist Perspective:

Buddhism, in its origins, was a pragmatic soteriology, a theory of liberation that sought to free humanity from suffering, first by thoroughly analyzing the fundamental human predicament and then by offering a practical method or path for eliminating the afflictions cognitive and dispositional that are perpetuated as greed, hatred, and delusion. The Buddha was frequently critical of conventional views including those carrying the authority of Brahmanic tradition. In marked contrast to the sacerdotal ritualism of the Brahmins, he offered a path that was open to all. The first canonical attitude to consider, soteriological inclusiveness, thus arguably is the most basic and also the most distinctively Buddhist attitude regarding the status of women that one can fine in the vast literature of the 2500 year old tradition. The earliest Buddhists clearly held that one's sex, like one's caste or class (varṇa), presents no barrier to attaining the Buddhist goal of liberation from suffering. Women can, affirmed by the Buddhist tradition, pursue the path. Moreover, they can become arhats, Buddhist saints who had broken completely the cycle of the suffering of death and rebirth (saṃsāra)[8].In fact, the position that femaleness is no barrier to the achievement of the Buddhist human ideals takes two forms in Buddhist texts. The more common variation on this theme essentially proclaims that the Dhamma is neither male nor female that gender is irrelevant or even non-existent when one truly understands Buddhist teachings. One also finds infrequent claim that in fact, for those with good motivation, femaleness is actually an advantage. Though that assessment is not by any means common or well-known, its very existence is important for gathering the fullness of an accurate record of Buddhist attitude toward gender. In addition, the Buddha's main argument against this was that no man or woman could be superior or inferior in society

merely by reason of his birth

The Buddhist view about woman's nature pointed out that despite the fact that the Buddha elevated the status of women; he was practical in his observations and advice given from time to time. He realized the social and biological differences between men and women. The reality of the fact of the nature of women was brought out by the Buddha who had pointed out not only their weaknesses, but also their abilities and potential. The Buddha did not talk about the concept of spiritual empowerment of woman but the investigations of epistemological and metaphysical considerations behind the Buddhist thoughts enable us to understand the Buddhist concept of empowerment. This concept of empowerment will enable us, further; to solve the problems that arise in a woman's life 2500 years ago he laid down his thoughts about women that were substantial enough to guide feminist thoughts and movements.

B. Social Empowerment of Women in Buddhism:

As we have seen that empowerment of woman is attained through her self-realization that is through her mental and spiritual development and through her knowledge of herself and of the society as well as the realization of society and its acceptance that woman also has her own independent existence. Her self-realization makes her aware of her attributes; her qualities belong to her and not these that are imposed on her by social and cultural conventions and through the processes of enculturation and socialization. When the woman and the society have clear understanding regarding the nature of each other then only, there is holistic development of society as well as of the members of the society.

The Buddha through his discourses always tried to enlighten the people about the myth of gender difference. In Buddha's time, the birth of female child was not welcomed. Her birth made the parents unhappy. It may be because the parents believed that after marriage, daughters went to their husband house then who would take care of the parents in their old age. But if they had son, their son lived with them even after their marriage. So, the sons could take care of them. It is because of this belief, parents preferred the male child. The Buddha tried to remove this kind of belief from the mind of people.

According to him, there was no reason to feel gloomy at the birth of a daughter. For example, King Pasenadi was unhappy at the time of birth of a girl to his Queen Mallikā. He went to the Buddha to tell this news and when the Buddha observed that King is unhappy, he said;

"Indeed, a woman of a certain sort is better than a man lord of folk: Wise, Virtuous, reversing her husband's mother, a devoted wife, the man born of her is a hero, ruler of the regions, such a son of a good wife is one who advised his realm"[9].

C. Political Empowerment of Women in Buddhism:

The Buddha acknowledged the independent religious status to women, but his views with regard to the political status of women remained conventional. We don't have many references about the political status of women in Buddhism. However, Srimālā, in Mahāyāna Buddhism held the position of queen. This consolidates the view that Buddhism did give equal status to women.

A woman could rule a kingdom. As secular women, their only business was to pure themselves as good housewives and affectionate mother. The truth is that Gautama was least interested in temporal matters. For him systems of governments did not appeal much. He did not care what general position of women or even men was in the social or political fabric of the country.

In the extensive kingdom of the great Buddhist monarch Asoka, it is not found that any office of significance was ever occupied by any woman. In the noble mission of propagating the Buddhist doctrine far and wide women travelled to every nook and corner of the globe and mixed with every sort of people, putting away all the gender differences. They preached to all men and women and expounded the doctrine in a worthy manner. Although, women held eminent religious position, the lay-sisters in the world had no respectable status to enjoy. Nothing was done by any law-giver to improve their secular existence and to ensure their general welfare. Thus, all went on as usual, without any betterment of the secular status of women. As we can see, Śrī mālā the Queen of Andhra, belonging to first century had important contribution to the development of the Buddhist thought[10].

D. Educational Empowerment of Women in Buddhism:

As a whole, woman in Buddhism enjoyed higher status, greater freedom, more equality and an enhanced liberal environment than in the preceding ages. Women were more empowered in the Buddhist period. Buddhism's contribution to the liberation and uplift of the woman in the social and educational sectors was equally immense. In this respect, the elevation of the woman in the Buddhist set up was conceptually much nobler, it was much more than a question of 'rights' and 'duties'. The Buddhists really respect interpersonal relationships and therefore do not desire to tear away any portion of society and isolate it. For Buddhism, it is an achievement in the total integration the woman into the social fabric of the human community. The family in this respect is the smallest unit. In Buddhist thinking the male's respect for the female had to be so high that the Buddhists knew what was meant by the courteous

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behavior to women. The ladies therefore had to be treated with due courtesy and consideration. Women under Buddhism had maintained their traditional legal position and the laws of the land had not change in the favour changed on this respect. In the Buddhist ages, women enjoyed religious and educational independence and spiritual and ethical advancement but in other spheres such as social, political and economic the situation remained the same as it was in the preceding ages. Overall, the rise of Buddhism brought an improvement in the status of women. Through its practices, it has also facilitated the self-confidence, empowerment and spiritual and educational liberation of both women and men such as Mahāpajāpatī Gotamī, the Buddha's maternal aunt and foster mother, Khemā, the queen of king Bimbisāra of Rajgriha, Paṭāchārā from Shravasti; proficient in duties, Bhaddā Kuṇḍalkeshā, Ambapālī and Isidāsī have attained positions of high repute in the religious order of Buddhism. Sāmāvatī from Bhaddiya, Khujjuttarā and Visākhā are known for their devotion and charitable deeds [11].Buddhism does not restrict either the educational opportunities of women or their religious freedom. The Buddha unhesitatingly accepted that women are capableof realizing the Truth, just as men are. This is why he permitted the admission of women into the Order, though he was not in favour of it at the beginning because he thought their admission would create problems in the Sasana. Once women proved their capability of managing their affairs in the Order, the Buddha recognized their abilities and talents, and gave them responsible positions in the Bhikkhuni Sangha. The Buddhist texts record of eminent saintly Bhikkhunis, who were very learned and who were experts in preaching the Dhamma. Dhammadinna was one such Bhikkhuni, Khema and Uppalavanna are two others[12].

CONCLUSION

Buddhism has accepted that women are as eligible for spiritual emancipation as men and women, both can follow the Four Noble Truths, the Right Eightfold Path, surrender to the three jewels – the Buddha, the Dhamma and the Saṅgha, cultivate the Pañcasīla and possess the three Jewels of Sīla, Samādhi and Paññā, and become eligible to emancipate through meditation[13].The empowerment of women is one of the solutions to the problems of inequality, subordination and marginalization that women face in the society. However, this kind of empowerment is only partial, for all though they have economic and political power, they are kept out of decision making or they are dependent on their husband, father or brother for crucial decisions. Hence in order to change this situation, it is necessary that women have to realize their own nature and understand the value of

their own existence. When they realize their own nature they will have confidence and will participate in decision making independently. This will be possible only when they will be empowered spiritually. However, this also means to bring a significant change in the social mentality. Many a time, a woman has confidence and has realized her own potential, but society prohibits and blocks her progress, her problems cannot be solved. In other words, to solve the problems of the woman, and in order to empower her it is also necessary that the society has to change its patriarchal mentality. The Buddha did not talk about the concept of spiritual empowerment of woman, but the investigations of epistemological and metaphysical considerations behind the Buddhist thoughts enable us to understand the Buddhist concept of empowerment. This concept of empowerment will enable usto solve the problems that arise in a woman's life 2500 years ago. He laid down his thoughts about women that were substantial enough to guide feminist thoughts and movements.

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The development of a large Schools Management According the King's Philosophy Model

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Abstract— This research aims to 1) study the elements of the development of a large school management model in accordance with the king's science, 2) develop a large school management model based on the monarchy, and 3) assess the suitability and appropriateness of the monarchy. The possibility of developing a large school management model according to the king's science By using a mixed method, a research was carried out in 4 steps: 1) study the elements of the development of a large school management model; 2) to develop a large school management model using the royal science Using the Delphi Technique and Focus Group Discussion, 3) analyzed the key elements through factor analysis and 4) assessing the feasibility and feasibility of the management model development. Manage a large school according to the king's science. From 30 school administrators, the statistics used for data analysis were percentage, range, quartile, mean, standard deviation, and component analysis. The research results were found as follows: 1) development of a large school management model according to the king's science is the management of the work with the middle line which consists of the philosophy of sufficiency economy and the principle of work of the king to achieve sustainable school development. 2) Develop a large school management model according to the king's science. There are 5 main components as follows: Sufficiency Economy Philosophy Understanding In terms of accessibility, development, and of the King's work principles.

3) The degree of suitability and feasibility of the development of a large school management model according to the monarchy. Overall and each item are very good.

Index Terms— *development of management style; large schools; King's Philosophy*

I. INTRODUCTION

The science of the king is the development of the King Rama IX with depth. All-round, foresight and emphasis on sustainability long before the global community becomes alert to this, it is a developmental approach aimed at improving the quality of life of all Thai people. Production, Research, Risk Management, Nature Conservation and Sufficiency Economy Philosophy, each element especially contributes to improving the quality of life of everyone. The poor and the needy by the experience of working that enables Thailand to go through various crises by working according to the king's science, understand, reach and develop as a method of the monarchy for sustainable development at His Majesty King Bhumibol Aduly. Dej has been used as a means of work throughout the reign of the king, has a very broad implication. Reliable, proven, His knowledge of the King has natural science, applied science, social science, anthropology, humanities, that is, all dimensions. If we follow / see the work that His Highness has worked for more than 70 years, He has made an example for you to see, all 1,500 places, all science, ethics, religion. The King places great importance on human development through

education, both in the school system and outside the school, even the disadvantaged and remote places. Sustainable Besides, we must maintain a balance in both the economic and social dimensions. Another important aspect of the environmental dimension is to strengthen the foundation like a "pile", although no one sees it, may be forgotten, but it is a "primitive" structure that is very important to the overall structure. In this regard, to strengthen "Community", which is the foundation of that country, King Rama IX insisted that the first lesson was "Let the villagers be teachers" centered on people, emphasizing "inner explosions", not just external impacts. (Krerati, 2005)

Basic education core curriculum, B.E. 2008, which adheres to the philosophy of sufficiency economy as one of the five goals of the curriculum, has developed the quality of learning about the sufficiency economy philosophy. As well as the development of the school to be assessed through a sufficiency educational institution, content framework for organizing learning activities. Sufficiency Economy Philosophy Consists of the principle of modesty they are rational and have a good familiarity on the basis of two conditions: the use of knowledge, prudence, vigilance and morality to prepare for the

change in material, social, environmental and cultural aspects. The Sufficiency Economy Philosophy has been the guiding philosophy in formulating the National Strategy (20 years) as well as the National Economic and Social Development Plan No. 12 2017-2021 , with a focus on leading to sustainable development practices, in which the philosophy of sufficiency economy will be a development path that leads to sustainability, the internal strength must be strengthened before starting. From self-reliance, self-reliance and vigorous integration and understanding of future development paths, there is a quality growth in line with the nature of "Thai 4.0". The monarchy of the Philosophy of Sufficiency Economy and the Sustainable Development Goals (Ministry of Education, 2009).

The 20-Year National Education Plan (2017-2036) is a strategic plan to formulate an Action Plan (Action Plan) to serve as a guideline for continuing education for target groups of all ages, from pre-primary, early childhood levels Primary, secondary, vocational and vocational education and working age by working integrally within the Ministry of Education and integrating with relevant departments, the National Education Plan is the heart of the Bible in working together to adjust the national education plan. To be consistent with and support the national strategy 20 years of emphasis on education management covering all age groups according to the constitution. There are 6 strategies for working together with cooperation, focusing on practical training to create a leadership group to drive the country Vision All Thais receive education and learn throughout their lives with quality. Live a happy life in line with the Philosophy of Sufficiency Economy and Global Change in the 21st Century (Ministry of Education, 2009).

The 12th Educational Development Plan of the Ministry of Education (2017-2021) addresses a new mechanism in "human development" that is the country's most important resource. This is the reason for the need for the 12th edition of the Education Development Plan (2017-2021) for use as a master plan in setting goals and directions of the Ministry of Education's mission operations and the government agencies in accordance with the direction of national development in the next 5 years to develop Thailand to stability. Prosperous and sustainable To happen in the future Must give priority to strengthening the existing national capital They are powerful enough to drive the medium and long term development process, especially "human development" to prepare them for the changes in the world in the 21st century, the most important of which is cognitive skills. And enhancing environmental factors contributing to the development of quality of people By embracing the philosophy of Sufficiency Economy of King Bhumibol Adulyadej Come and apply Both systems and structures of Thai society to have protection against various changes that will occur (Jukparun, 2012)

At present, the school is the main unit and the closest practice unit to the learner in order to act for the reform of education in accordance with the spirit of the National Education Act of Thailand. In 1999, the goal of achieving quality students, receiving comprehensive, equitable and fair educational services, therefore, and educational institutions must have effective and efficient administration, capable of

supporting the decentralization, administration and management of education from the state. Indeed, both academic administration, budget management, personnel administration and general administration, but on the other hand, such policies are often criticized for increasing injustice and inequality in the education system. Create burdens and costs on stakeholders in disadvantaged areas, for example, students may have to leave school, parents face higher expenses, etc.

The way for the development of large school management is a new concept that will truly help the development of large school management to be successful, which is the application of the "royal science" in quality management. Education in which "The King's Philosophy" is a practice that demonstrates understanding, access and development as a method of the monarchy for sustainable development that His Majesty King Bhumibol Adulyadej reigns. 9 Having been used as a working method throughout the reign, the researcher was interested in applying the king's science in the area of school administration according to the philosophy of Sufficiency economy in 5 areas, which consisted of education administration, curriculum and learning management. Taught the organization of learner development activities, personnel development of educational institutions, and results / images of success understanding (Understanding) consist of 4 elements: use of existing data (Existing data) Use of empirical data. Data), Analytics and Research and Experiment till actionable results (Connecting) consist of 3 sub-components. Is an explosion from inside (Inside-out blasting, Understand target, and Educate. Development consists of 3 sub-elements: self-initiated, self-reliance and 3. A model for disseminating knowledge. (Prototype and role model) to be used in "the development of large school management according to the king's science" to raise the educational quality of small schools to higher in steadfastness, prosperity and sustainability

II. RESEARCH OBJECTIVES

1. To study the elements of the development of large school management according to the king's science model.

2. To create a model for the development of large school management according to the king's science

3. To assess the feasibility and feasibility of a large school management development model according to the king's science.

III. RESEARCH METHOD

Step 1 Study the concepts, theories, texts, documents and research related to the development of large-scale school management based on the king's science model.

Step 2 Do the Delphi Technique Create an expert interview. To get opinions with the Delphi technique process using a specific selection method to find consistency from opinions of 11 experts, the qualifications of the experts are People with knowledge and ability to develop large-scale school management according to the royal science.

Step 3: Focus Group Discussion by inviting 13 school management experts and related people to participate in a group discussion on the development of a large school management based on the royal style.

Step 4 Evaluation: When the three-step process is completed, the researcher will use the results as a rating scale questionnaire for large school administrators. Under the Office of Chonburi Educational Service Area, Region 1-3, 60 people voted to comment one more time to make the model more complete.
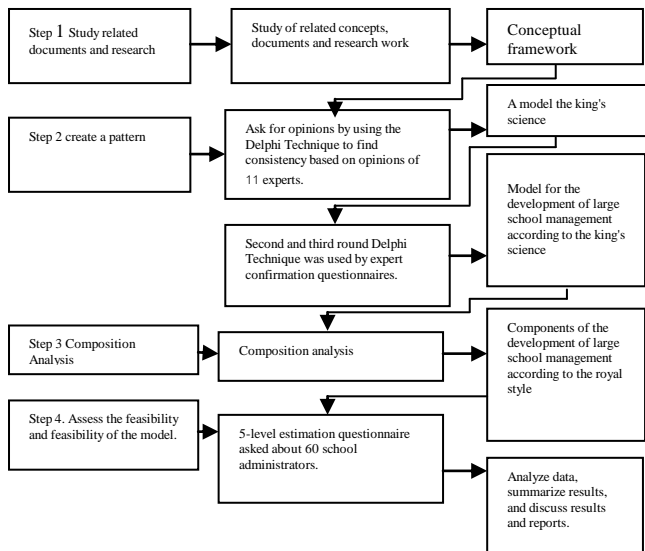
IV. Sample Selection

1. Population for the Delphi technique

The research population was the school administrators. Educational Administration Qualifications Academic of Educational Administration with a track record in school administration in the King's leadership. Or schools that have received awards such as the school award sufficiency Economy Learning Center Award

The sample group used in this research was education administration personnel. Academic in education administration and school administrators using a specific selection method of 30 people, based on their qualifications, experience in school administration. And is famous in the education industry

2. Population for inquiring using questionnaires

The population for questionnaire was used by the school administrators of 60 schools.

The sample group for answering the questionnaire was the administrators of large schools under the Chonburi Primary Education Area Office 1-3 by using the method of opening the tables of Crazy and Morgan (Krejcie & Morgan, 1970) has a sample. Large educational establishments, 30 schools, one student each school by sampling.

Construction and development of research tools
Research instruments

1. The interview form is an open-ended, unstructured question about the management of a large school according to the king's science, divided into 3 parts:

Part 1 General information of the interviewee

Part 2 Components for the development of large school management according to the royal style

Part 3 Other Suggestions

2. Opinion questionnaire, evaluation form 5 levels (Rating Scale) on the development of large school management according to the royal science model it is divided into 3 episodes which are

Part 1 General information of respondents

Part 2 Components of the development of a large school management based on the monarchy form obtained from interviews with 100 experts.

Part 3 Other Suggestions

Tool construction process

Part 1 is an open-ended, unstructured question about the development of a large school management based on the king's science model. By studying the concepts and theories about school administration Concepts and theories about the science of the monarchy Concepts and theories about administration of educational institutions; Basic concepts of large school administration and related research work.

1. To be used as information in determining the scope and content of the interview.

2. Analyze variables and issues to study to set as question in the interview

3. Create an unstructured interview form from conclusions drawn from the analysis of concepts, theories and related research. For interviewing school administrators Expert Academic of Educational Administration

4. Take the completed interview. Offer an adviser to check

5. Revise the interview form. According to the advice of an advisor

6. Bring the revised interview form. To interview 11 experts for Round 1

7. Bring the interview form for each expert to confirm the accuracy from the second interview.

8. Take data from interviews of 13 experts in the second round to use content analysis and ask the experts to answer questions in the third round by doing a 5-level rating questionnaire (Rating Scale) using the rating scale of Liket according to the following criteria:

A score of 5 means that opinion is the highest.

Weight score of 4 means there is a high level of opinion.

Weight score of 3 means there was a moderate level of opinion.

Weight score of 2 means there is little opinion.

A score of 1 means that opinion is the least level.

This is to analyze the median, mode, and interquartile range to create a new questionnaire. To inquire about 60 large school administrators

Part 2 Comment Questionnaire 5-level evaluation form (Rating Scale)

1. Bring the completed questionnaire in item 8 to the advisor to check the accuracy and initial suitability.

2. Revise the questionnaire according to the advice of the advisor then brought to the experts for 5 persons to check to test the content validity and to find the index of conformity or IOC (Index of Item Objective Congruence) and consider choosing questions that have more IOC. 0.50 And above are 100 items of income questionnaire

3. Revise the questionnaire. Based on expert suggestions and recommendations of advisor

4. Take the revised questionnaire to tryout with the administrators of large schools, Kamphaeng Phet Province. Which were similar and not a sample used in this research, 30 people to

analyze the accuracy. (Reliability) by using the alpha coefficient. (Alpha-Coefficient) by setting the confidence value of the whole questionnaire. Must have a value of 0.70 or more (Boonchom, 2002)

5. Tryout questionnaires were used to collect data from 30 large schools, one student per school, and analyzed the data by using a random sampling program.

V. Data collection

1. Procedures for collecting information from the interview.

1.1 Submit a letter requesting assistance to collect information To give details before proceeding to the interview

1.2 The researcher used the interview method by traveling to interview by himself.

1.3 Send a thank you letter Interview specialists who provide information on educational institution management.

2. Procedures for collecting data from questionnaires

2.1 Investigators follow up and collect data for each school setting.

2.2 Introduce the self-introduction letter and a questionnaire asking for help in answering the questionnaire for the sample group of 30 schools administrators, 1 person per school Each educational institution, the researcher collects questionnaires by themselves. And some places sent by post In addition, there are some places that collect information online, where the researcher takes the completed questionnaire to create a form on google drive and then sends a link to request cooperation from the sample group to fill in the information online ready to request a convenient date on Receiving questionnaires

2.3 Researcher collects questionnaires at appointed time to check the completeness of questionnaires. And send a thank you letter which the researcher received the questionnaire back from the sample 100%

Data analysis

1. Analysis of information from the interview.

1.1 Information obtained from the interview Use content analysis

2. Analysis of data from questionnaires

2.1 General information of the respondents was analyzed by using quantitative statistics such as Frequency and Percentage.

2.2 Information on the elements of large school management according to the king's science the researcher analyzes the data by using a package program by distributing the frequency. And find the percentage in the selected part using the mean And the standard deviation in the approximate scale portion To determine the average score for each level, the criteria are as follows (Boonchom, 2002).

The average score of 4.50-5.00, meaning that is most suitable.

The average score of 3.50-4.49 means that the suitability is at a high level.

The mean score of 2.50-3.49 means that the suitability is in the medium level.

The average score of 1.50-2.49 means suitability is at a low level.

The average score of 1.00-1.49 means that the suitability is the least.

2.3 Analysis of the data obtained from expert interviews is the second and third round questionnaires used to calculate the median, mode, and interquartile range. (Interquartile Range) using a program.

VI. RESEARCH FINDINGS

Objective 2. The research found that the creation of a large school management development model according to the king's science model Using the Delphi Technique from interviews with 11 experts, questions were analyzed from the Delphi Technique Round 1 and the Delphi Technique in Round 2 and Round 3 to verify authenticity from experts Focus Group Discussion by 13 school management experts to seek advice and recommendations in accordance with the format. And exploratory factor analysis to examine the weight values of the indicators for each component. The criteria for selection were factor loading of 0.5 and above. There are 5 main components as follows: 1) The Sufficiency Economy Philosophy consists of 8 indicators. The factor loading factor was between .898 - .547, the variance was 8.87 and the percentage variance was 7.141. 2). It consisted of eight indicators, with a factor loading of .887 - .624, a variance of 7.14 and a percentage of variance of 6.8875 3) accessibility. It consisted of 6 indicators with a factor loading factor between .657 - .535 and a variance of 5.6554 and a percentage of variance of 5.354 4). There were six indicators, the factor loading factor was between .835 - .534, the variance was 4.24, and the percentage variance was 3.34 and 5). Of the king It consisted of eight indicators with a factor loading factor of .734 - .5145, a variance of 3.547 and a percentage of variance of 2.424, respectively. 1. The research results showed that the development of large school management in accordance with the king's style is the central management system consisting of The Sufficiency Economy Philosophy consists of curriculum and instructional management, educational administration, learner development activities, educational institution personnel development, and results or images of success and performance principles. The kings there are two components: Understanding and development in order to create a model for sustainable development of the royal school

Objective 2. The research found that The creation of a large school management development model according to the king's science model Using the Delphi Technique from interviews with 11 experts, questions were analyzed from the Delphi Technique Round 1 and the Delphi Technique in Round 2 and Round 3 to verify authenticity from experts Focus Group Discussion by 13 school management experts to seek advice and recommendations in accordance with the format. And exploratory factor analysis to examine the weight values of the indicators for each component. The criteria for selection were factor loading of 0.5 and above. There are 5 main components as follows: 1) The Sufficiency Economy Philosophy consists of 8 indicators. The factor loading factor was between .898 - .547 , the variance was 8.87 and the percentage variance was 7.141. 2). It consisted of eight indicators, with a factor loading of .887 - .624 , a variance of 7.14 and a percentage of variance of 6.8875 3) accessibility. It consisted of 6 indicators with a factor loading factor between .657 - .535 and a variance of 5.6554 and a percentage of variance of 5.354 4). There were six indicators, the factor loading factor was between .835 - .534, the variance was 4.24, and the percentage variance was 3.34 and 5). Of the king It consisted of eight indicators with a factor loading factor of .734 - .5145 , a variance of 3.547 and a percentage of variance of 2.424, respectively.

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Objective 3. The research results were found that The results of the feasibility and feasibility assessment of the large school management development model based on the monarchy model From 30 large school administrators under the ChonBuri Educational Service Area Office 1-3, it was found that the level of suitability and feasibility of the large school management development model according to the king's science model. Overall and each aspect Very good the average value can be sorted from descending as follows: Work principles ($\overline{X}$ =4.91, SD = 0.87): 1) The school adjusts the teaching plan to be simple, uncomplicated, and 2) the school has a modern administrative system. By adhering to the principles of accuracy, speed, economy, value. 3) School administrators manage with fairness. Using the rule of law Philosophy of Sufficiency Economy 4) the school instills students to adhere to honesty and sincerity to each other. 5) The school provides teaching and learning that focuses on students to learn happily ($\overline{X}$ = 4.78 SD = 0.65), namely 1) measurement and evaluation. Learning activities According to the philosophy of sufficiency economy 2) media and learning resources About the philosophy of sufficiency economy 3) Personnel development according to the philosophy of sufficiency economy 4) Integration of the economic philosophy Sufficiency for learning activities 5) Provide guidance activities for learners to plan their own life. In line with the philosophy of sufficiency economy and 6) organizing guidance activities and a system to take care of helping learners According to the Sufficiency Economy Philosophy ($\overline{X}$ =4.57, SD = 0.68), namely 1) the students have knowledge and understanding of the secrets of the sufficiency economy philosophy. In accordance with the learning standards of the sufficiency economy of each level in the academic year. Understanding and realizing the value of the philosophy of sufficiency economy 3) organizing meetings, training seminars, study visits to various learning sources. To strengthen the application of the sufficiency economy philosophy in Live and perform duties 4) Learners are involved in problem solving. Or developing a community school in an economic or social or environmental or cultural environment In accordance with the philosophy of sufficiency economy 5) organize activities to promote life and performance According to the philosophy of sufficiency economy for educational personnel In terms of accessibility ($\overline{X}$ = 4.76, SD = 0.345), namely 1) executives can direct personnel goals to adapt to the needs and goals of the organization 2) learners practice themselves Live a balanced life 3) Personnel can live with cultural foundations and are ready to embrace social changes. Cultural transformation from globalization 4) Executives provide opportunities for personnel to discuss career goals with people who can offer good opportunities; and 5) Executives propose factors that help people be successful in their work. Work And understanding ($\overline{X}$ = 4.72, SD = 0.43), namely 1) the school developed classroom research to improve the student's teaching and learning 2) The school used data to analyze the program 3) The school developed an information network system. Modern 4) The school has organized a record system, reporting results and transferring student information, 5) the school uses learning resources and local wisdom for teaching and 6) the school promotes research to develop learning. Follow up

and use the results to develop learners to their full potential accordingly.

Discussion

. The results from the objective research item 1 showed that the development of large school management according to the royal science model Is the management of the work with the middle line Which consists of The Philosophy of Sufficiency Economy and the King's work principle is "Understanding and Development" to achieve sustainable school development. Which the education of learners in each level from the early childhood level Basic education level Vocational level Tertiary level Professional level And the level of the elderly will have different goals than before, with respect to all dignity. The situation with the slowdown, the progression, or the gratitude that has occurred is the learner has a reason. Do not underestimate, think, analyze, solve problems and lead to life (Chutima Watthana Khiri, 2018: online) is the basis for living according to principles.Sufficiency economy is planned for living. There is a purpose of self-sufficiency in four factors. There is a reason to act, able to control their own income and expenditures, in fact, have to withhold excess spending. Have knowledge and intelligence according to the level of the person according to the age range the problem must be analyzed and the problem can be solved. There is a positive change, not clinging to what is wrong, not suitable. Devise a method for self-development in a correct way Continuous self-improvement in the correct use of one's own and national resources based on the 6 dimensions of knowledge, consciousness, and love of nature / environment. Coexist with others in a helping hand without hurting each other Have pride and see the value of Culture, values, identity of being Thai At the vocational and tertiary education level there must be an education that enhances the identity of learners in the immunization professional field. Creative career sufficient living Avoid the deceitfulness the school has a sufficient economy learning resource to implement a career building project. There is a profit-loss account. Income-expenditure, study, research, practice, and network with the community

The results of the objective research item 2 found that the large school management development model according to the king's science model there are 5 main elements which are the philosophy of sufficiency economy. Understanding In terms of accessibility, development, and of the King's work principles this is because administrators have a good understanding of knowledge management activities for use in management. Executives have leadership in driving projects in accordance with objectives. The school has good relationships with the local community and the community. And have learning resources on the sufficiency economy both inside and outside the school who is the teacher Not that there will only be knowledge in academics and in teaching. Must know how to train children both in morality and culture As well as to have a sense of responsibility in their duties and in the capacity to be a good citizen of the nation in the future Educating knowledge, also known as teaching, is different from training. Teaching is to educate the learners while the training is to train the mind of the learner to become a habit. May you not only teach, to train to acquire such knowledge, you can see that the purpose of the education of all levels of the people is essential to the cognitive domain, the psyche (Affective Domain) and practical aspects (Performance) This is in line with Preecha Chang Kwan

Yuen and the team (2013) Khiri Boon Jongwuttiwet and Mariam Nilpan (1999) and the Government System Development Committee (2008) that discussed the characteristics of the good manual. That good guide it must state the importance and benefit of the manual that will apply to those concerned. The purpose of using the manual is clearly defined for what the researcher will get, and clarifications for relevant persons to know and understand the process.Using the manual to make the book interesting the contents of this manual should be suitable for the knowledge base of the person who will be studying and use language that is easy to understand. Examples are available for easy understanding, illustrated and updated.

The results from objective research 3, it was found that the degree of feasibility and feasibility of the large school management development model according to the monarchy model. Overall and each aspect Very good since the administrators have knowledge and understanding of knowledge management activities to be used in the management, the executives have the leadership to drive projects in accordance with the objectives. The school has good relationships with the local community and the community. And there are learning resources on the sufficiency economy both inside and outside the school for a variety of processes. Thus causing the large school management level according to the king's science Overall and each item Very good Consistent with the research of Wongchan Kaew Si Nuan (2014) conducted research on Development of the school's academic administration manual to expand educational opportunities Under the Office of Surat Thani Primary Educational Service Area 1, it was found that the results of expert evaluation Is suitable at the highest level

Suggestions for the next research

From the research on the model for the development of large school management according to the king's science model Researchers have seen the benefits that will be used in the development of schools to develop large-scale school management to sustainable development under the Office of Chonburi Educational Service Area, District 1-3, as follows.

1. The Office of the Basic Education Commission and the Chonburi Educational Service Area Office, District 1-3, should take the research results into consideration to be used as a guideline for monitoring the performance in each area to ensure consistency and coordination. Between departments to be done quickly

2. The Office of the Basic Education Commission and the Chonburi Educational Service Area Office, District 1-3, should take the research results into consideration to be used as a guideline for organizing training to provide opportunities for school directors, teachers and personnel. In the future, education has increased their knowledge and understanding about other areas of school management development operations.

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Analysis of physical properties of the HAT-P-12b planetary system

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Abstract—The exoplanet HAT-P-12b was observed at the Sierra Remote Observatories by a 0.7 meters diameter reflective robotic telescope CDK700 with the CCD photometric technique. This research using 317 images of the HAT-P-12b on April 14, 2017. They were analyzed the photometric photometry and calculated the physical properties by the AstroImageJ program. The results show that the radius of the exoplanet HAT-P-12b is 0.951 RJ, orbital period P about 3.2105 days. The center of page traverse Tc is 2457857.166110000 (BJD) and the total time of traverse T is 0.093519 days. The Star and Exoplanet View program was created the HAT-P-12b model that the decreasing brightness with 1.94864 percent the average distance between the exoplanet HAT-P-12b and the center is 0.0388 AU.

Keywords— HAT-P-12b, photometric, physical properties

I. INTRODUCTION

Planets outside our solar system (extrasolar-planet) or exoplanet was discovered in the year 1995 by two scientists, Mayor and Queloz, whose name 51Peg b. The mass of this a planet is 0.7 Jupiter mass. It has a short orbital period about 4 days and the average distance is 0.05 AU. In the present, the exoplanets were discovered more than 3,400 systems and almost of them are like Jupiter.

In this work, the photoelectric photometry method was analyzed about the physical properties of the exoplanet HAT-P-12b. by a freeware AstroImageJ (Collins et. al., 2015). The model was forcased by the Star and Exoplanet View program.

II. EXPERIMENTAL

The exoplanet HAT-P-12b is in the HAT-P-12 system in the Canes Venatici constellation. It was observed by a 0.7 meters diameter reflective robotic telescope with the CCD and filters in UBV system at the sierra remote observatories, the National Astronomical Research Institute. (Public Organization). The positionof the observatory is the sierra Nevada mountain range, California, USA. The latitude and longitude are 37.07 0N and 119.4 0W, respectively. It is 1,405.128 meters hight from mean sea level. The observation in this work was on April 14, 2017. The sample of the HAT-P-12b as shown in Fig.1.
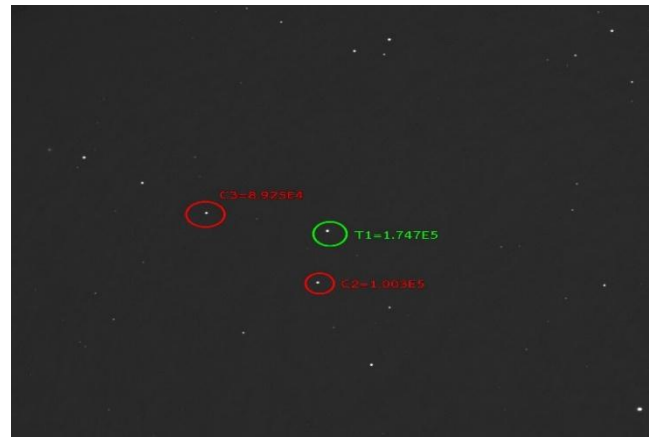
Fig. 1 The image of the planetary system HAT-P-12.

From the Fig.1 the GSC2 N130301284 and GSC2 N130301294 were used to the references star. The basic information as shown in Table 1.

Table 1. The star information from this observation.

Object	R.A.	Dec.
HAT-P-12	13 57 33.47	+43 29 36.6
GSC2 N130301284	13 57 24.99	+43 31 34.0
GSC2 N130301294	13 57 16.64	+43 26 53.6

The 317 observation images on April 14, 2017 were analyzed and constructed the light curve of the exoplanet HAT-P-12b as shown in Fig.2.

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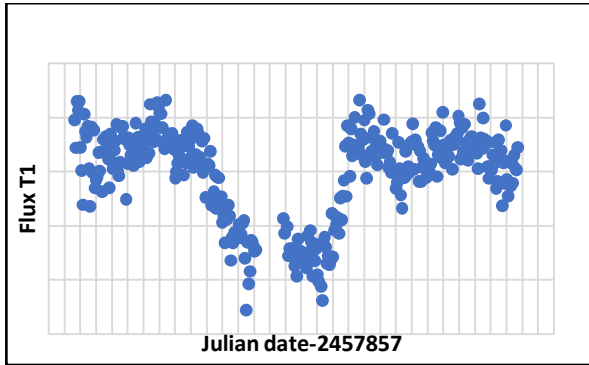
Fig. 2. The light curve of the exoplanet HAT-P-12b

III. RESULTS AND DISCUSSION

The photometry technique was used to analyzed the exoplanet HAT-P-12b observation images. The syntactic light curve (strength line) was adjusted and corresponding to the data point (dot line) as shown in Fig.3.
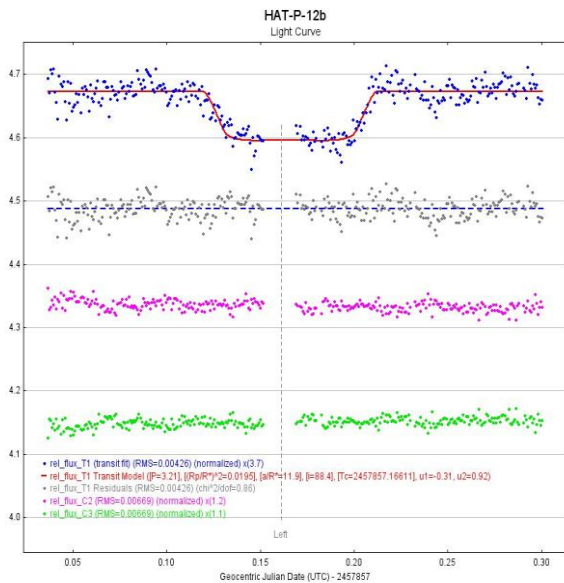
Fig. 3. The syntactic light curve with the exoplanet HAT-P-12b

The physical properties that consistent with the light curve as shown in the Table 2.

Table 2. The best parameter of the exoplanet HAT-P-12b.

Parameter	Value
$M^*(M_{sun})$	0.645
$R^*(R_{sun})$	0.701
$Rp(R_{Jop})$	0.41
$(Rp/R_*)^2$	0.019486400
$\rho^*(cgs)$	2.603
a/R_*	11.939
T_c (BJD)	2457857.166110000
Inclination (i)	88.4
T	0.093519
Planet Radius (Rj)	0.95
b	0.163
a	0.0388

Furthermore, The physical properties value from Table 2 were forecasted its HAT-P-12b model by the Star and Exoplanet View program, as shown in Figure 4.
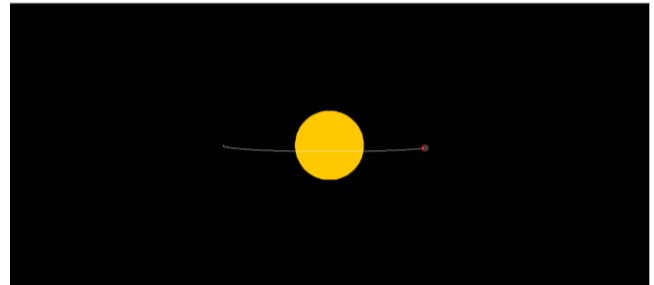
Figure 4. Theexoplanet HAT-P-12b model.

IV. CONCLUSION

This research analyzed 317 images of the exoplanet HAT-P-12b on April 14, 2017 from the Sierra Remote Observatories, the National Astronomical Research Institute of Thailand (Public Organization). The light curve was created and used to computed the physical properties of the planetary system HAT-P-12b by AstroImageJ software. The results show that the radius of the HAT-P-12b is around 0.951 R_J. Its orbital period is 3.2105 days. The transit epoch Tc is 2457857.166110000 (BJD) and the transit duration T is 0.093519 days. Finally, theexoplanet HAT-P-12b model show that the decreasing brightness about 1.94864 % and far from the HAT-P-12 center is 0.0388 AU.

V. ACKNOWLEDGMENT

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Thanks to the National Astronomical Research Institute For an image of the HAT-P-12 planetary system taken from the Sierra Remote Observatories. USA Which is the main raw data to be analyzed for conducting research this time

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The Activity Model of Moderate Time, More Learning for Learning and Teaching Management in Basic Education

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Abstract— The purposes of this research were; 1. to study the activity model for Moderate Class, More Learning of basic educational students according to the state policy, 2. to develop activities for Moderate Class, and 3. to create activity sets for Moderate Class. The data were collected by questionnaires from 254 students and by in-depth interviews with 10 school administrators. The Results of the Study found that:1. The activity model for Moderate Class, namely; Part 1: Lead consisting of 1) Environment, 2) Principles of policy and theory of Moderate Class, More Learning, and 3) Objectives, Part 2: Model consisting of 1) Work system for information technology concerning students' skills, interest, and need for using in setting plans, 2) Management process consisting of four learning domains; Head, Heart, Hand, and Health, and Part 3: Implementation consisting of 1) Structure, 2) Decision of school administrators, 3) Evaluation guideline and achievement conditions depending on each school.2. The development of activities for Moderate Class, More Learning of basic educational students according to the state policy consisted of 4 activity groups and was to integrate students' learning, living and working together with 4 Hs; Head, Heart, Hand, and Health. 3. The four sets of activities were; Activity set 1: Learning management consisted of 2 sub-activities; story telling and match making. Activity set 2: Competency and learning enhancement consisted of 2 sub-activities; junior scientist and fun mathematics. Activity set 3: Characteristics and value enhancement consisted of 2 sub-activities; history through movies and religious conservation, and set 4: Characteristics and value enhancement consisted of 2 sub-activities; aerobics dance and organic agriculture.

Index Terms— *Activities Model, Moderate Time, Learning and Teaching.*

I. INTRODUCTION

In teaching and learning in educational institutions, young people have many learning and teaching problems in the classroom. Many children are assigned to do their homework. This caused a lot of stress in their learning. For 2 months, 3,831 schools under the Ministry of Education piloted the activity called "Reduce the time to learn, increase the time to learn" by the school reducing the academic time in the classroom. At around 2:00 p.m., the schools organize child development activities according to the age range under the 4 Hs : Head (brain), Heart (mind), Hands (action) and Health (health).

The Office of the Basic Education Commission (OBEC) allocated 300 menus from 4 activities: skills building activities, free activities, vocational teaching activities and academic teaching activities. The first three weeks after the activity has been adapted according to the context of each school, OBEC summarizes operational results and reports to General Daowpong. 75% is satisfaction rating amid scholars' skepticism that it might be too early or not to assess satisfaction.[1]

"From inquiries, it was found that School administrators have to clarify and create knowledge and understanding for teachers many times, but they still do not understand as expected because this is a new policy. Many schools run the program without confidence about the outcome. Not clear in the course of action, the school administrators, teachers and parents are concerned about teaching in the core subject matter. They are afraid that the children will not receive the knowledge of the core course and result in decreased academic performance, especially at the secondary level where the teachers themselves have workloads and other activities either received from the central or various departments came in and overshadowed a lot of teaching time before.

That causes some teachers to think that it increases their workload. For example, opportunity expansion schools need to adjust the study time earlier and faster causing some children living far away to reach school on time or some schools schedule classes in the lunch time. While the smaller schools are getting material costs for organizing activities, but there is not enough. They must receive

support from parents, students, temples, sub-district administrative organizations (SAO) and communities.

Nowadays, the transformation from the world society is moving into a learning society all the time in order to adapt and keep pace with the rapidly changing economic, social, political and cultural aspects of countries, such as hemispherical powers. Western and Eastern Hemisphere countries and neighboring countries of Thailand aim to revise education as a learning society in order to organize appropriate and quality education systems and processes, which are important mechanisms for improving population quality, quality of life and quality of the competition [2]

Concrete Reform Guidelines One of the government's policies is to reduce academic school hours but not affect the core content that children should learn. Teachers must use their ability to design learning for their students to know more with effectiveness. According to the policy, the school hours have been put into practice by requiring the study in the academic subjects until 2:30 PM, but the time when the school quits remains the same as prior schedule, usually in the afternoon at 4.00 p.m.

Therefore, during the school period until the time when students return home, the schools have to organize creative activities for students to practice and should be a variety of activities that enhance their analytical thinking skills. And most importantly, there should be activities that encourage children to explore their own potentials and preferences. [3]

It is believed that every child is unique and has their own abilities. The organization of activities does not have to be open to just the same room or level and known how to adapt, to help and take care of each other, interacting with people of various ages by simulating the real situation in society for children to learn, which will further enhance solving problem skills for Thai children. [4]

Moderate the study time, increasing the time of knowledge is the educational vision framework to prepare students for the 21st century learning in Thailand. It is in line with many of the world's educational leaders who agree with the concept as most important in the 21stcentury: knowledge of the world, basic knowledge of occupation, basic knowledge of citizenship, health and environment, and essential skills in the 21st century including learning and innovation skills, information, media and technology skills, work skills, practical life skills (with families, schools, communities, states, and nations).While the world is changing, only people who have the knowledge and skills to cope with constant change and who can adapt themselves to new situations will be successful. Throughout the 21st century, students will be able to learn and adapt to change over time. [5]

Therefore, the researcher is interested in studying how time-consuming education is essential to how reducing learning time increases learning time can improve teaching and learning in different classes and how the results should be assessed, reducing study time should be increased learning time for teaching and learning activities, and how much reduction of study time increases the learning time in the direction of the objective setting.

II. RESEARCH OBJECTIVES

1. To study the format of activities to reduce the study time, increase the learning time of basic education students according to government policy,

2. To develop activities to reduce the study time, increase the learning time of basic education students according to government policy, and

3. To create a series of activities to reduce the study time, increase the knowledge time of basic education students according to government policy.

III. RESEARCH METHODS

A. Research Methods

This research study was a qualitative study, by dividing the research scope as follows:

1) Content focus on education, a study of activities arrangement, reducing learning time, increasing learning time for teachers and basic students according to the policy of the government of educational service area, Bangkok

2) Population of 120 administrators and teachers and 254 of 740 primary school students in grades 4-6 responded to a questionnaire as the samples.

B. Research Process

Researchers will perform as follows:

1) Studying the principles, concepts and theories on learning time reduction and learning time for teaching and learning at the basic education level.

2) The research instruments were student questionnaires and interviews with administrators and teachers.

IV. RESEARCH RESULTS.

5.1 The results of the study, the format of the activities to moderate time, increase the learning time of the students at the basic education level according to the government policy, found that the opinions of all four aspects of students were at a high level, namely

Part1: Learning management; there is a high level of overall practice, students learn to coexist, considerate and help each other. Students learn and practice happily and can develop their own abilities.

Part 2: Enhancing competencies and learning; there was a high level of overall practice, including activity patterns that meet the needs of students. The media / materials used for the activity are appropriate.

Part 3: Strengthen characters and values; there was a high level of overall practice, including activities to cultivate students to become more patriotic, religious and monarchical. The students enjoyed the activities, and organizing activities was essential to the daily life of the students.

Part 4: Enhance working, living and life skills; the overall practice level was at a high level, including interest response activities, aptitude, student life promotion activities, and activities that meet the needs of learners according to their differences.

5.2 Develop activities to reduce learning time and increase learning time of primary school students.

Step 1: The learning management was that;

1) Students learn about coexistence, generosity and help.

2) The students learned happily.

3) Students have practiced and developed their own abilities

4) Complete the integration of 4 Hs: Head, Heart, Hand, and Health

5) Provide integrated learning to complete all 4 Hs to jointly develop continuous learning, know how to practice teamwork skills, able to manage knowledge in daily life, and be kind to friends and society

6) Activities to moderate the learning time and increase the time of knowledge of the Office of the Basic Education Commission has established 4 sections, 16 groups. The four sections are 1) learner development activities, 2) capacity and learning activities, 3) enhancing characteristics and values, and 4) getting work, livelihood and life skills.

Step 2: Enhances competence and learning, namely

1) Activity patterns to meet the needs of students,

2) The media / materials used in the activity are appropriate,

3) The duration of the activity is appropriate,

4) The school focuses on organizing activities to enhance competencies in 5 areas, namely communication, thinking development, problem solving, use of technology, and life skills development,

5) Activities to develop communication skills, thinking, problem solving, and using life skills, and use of technology, and

6) School activities will focus on activities that enhance competency and learning, consisting of 5 activity groups.

Step 3: Aspect to strengthen characters and values is;

1) An activity to instill in students to become more patriotic, religious and monarchical,

2) The students enjoyed the activities,

3) The organization of activities is essential to the daily life of the students,

4) Cultivate consciousness and values to benefit society, have a public mind and use of various services, both for the benefit of ourselves and the public, cultivate patriotism, religion, and the monarchy, and cultivate morality, ethics, and good conduct towards students.

5) 12 values strengthening, and

6) Strengthening of characteristics and values consists of 4 groups of activities.

Step 4: Enhance working, living and life skills

1) Activities to respond to interests and aptitude,

2) Student life promotion activities,

3) Activities to meet the needs of learners according to their differences,

4) Integrate learning experience with lifestyle, have life skills, work with others, love and unity of working in a group,

5) Enhancing working skills, the lifestyle that the executives and teachers must organize activities that students can use in their daily life. Each activity has to be repeated and always focused on review so that students do not forget the activity, and

6) Strengthening of working, living and life skills consists of 4 groups of activities.

Create a series of activities to reduce the study time, increase the learning time of primary school students.

Step 1: Learning management is the first activity set, the learning management is

Activity 1: Thai tells stories

Activity 2: Finding a partner

The second area to enhance competency and learning is the second set of activities to enhance competency and learning, namely

Activity 1: A little scientist

Activity 2: Math, think fun.

Set 2 to strengthen characteristics and values is the third set of activities to strengthen characteristics and values.

Activity 1: Learn about history through a movie screen

Activity 2: Support religion.

The fourth area enhances working skills, livelihoods, and life skills, which is a set of 4 activities to strengthen characters and values, namely

Activity 1: Aerobics to excellence

Activity 2: Organic Agriculture (Agriculture)

V. DISCUSSION

The research findings can be discussed as follows:

1. The results of the study, the format of the activities to reduce the study time, increase the learning time of the students at the basic education level according to the government policy, found that the opinions of all four aspects of students were at a high level, namely

Part 1: Learning management, there is a high level of overall practice, i.e. students learn to coexist, considerate and help each other. Students learn and practice happiland develop their own abilities.

Part 2: Enhancing competencies and learning, there is a high level of overall practice, including activity patterns that meet the needs of students. The media / materials used for the activity are appropriate. The duration of the activity is appropriate.

Part3: Strengthen characters and values, there was a high level of overall practice, including activities to cultivate students to become more patriotic, religious and monarchical. The students enjoyed the activities and organizing activities is essential to the daily life of the students.

Part 4: Enhance working, living and life skills, the overall practice level was at a high level, including interest response activities, aptitude, student life promotion activities, activities meet the needs of learners according to their differences, and corresponding to the research results, the format of activities to reduce the study time, increase the knowledge time of the students at the basic education level according to government policy.

In line with Ket Amon's Mingkhaowhas' study of "Conditions and problems according to the policy to reduce school hours Under the Office of Ubon Ratchathani Primary Educational Service Area 4", the research found that the condition and problem of implementation of the policy to reduce school hours in overall practice was at a high level. [6]

And in line with PornthipTaosuwan's research in "Evaluation of the teaching and learning process of primary school teachers: a case study of primary school teachers in Yala Province", the research results were found that[4] factors related to the teaching and learning process the evaluation side informs the students about the evaluation criteria and has prepared the teaching, review and understand the content before the exam. There is a continuous connection of teaching and teaching materials. [7]

2. To develop activities to reduce learning time and increase learning time of primary school students.

Section 1: Learning management includes thoughtful students and helping each other to learn happily, practice and develop, increase one's abilities. Integration to complete 4 Hs, namely Head, Heart, Hand, and Health, and the learning time reduction activities of the Office of the Basic Education Commission set out 4 sections, 16 groups. The four sections include 1) learner development activities, 2) building activities, enhance competence and learning, 3) Strengthen characters and values, and 4) Strengthen working skills, livelihoods and life skills.

Section 2: Enhance competency and learning, i.e. activities that respond to student needs. The media / materials used for the activity are appropriate. The duration of the activity is appropriate. The school focuses on organizing activities to enhance competencies in 5 areas, including communication, thinking development, problem solving, use of technology, and life skills development.

Section 3: To strengthen the characters and values, it includes activities to instill students to become more patriotic, religious and monarchical, and to have fun in doing activities. Organizing activities are essential to the daily life of the students, cultivate consciousness and values to benefit society, have a public mind and use of various services, both for the benefit of ourselves and the public, cultivate patriotism, religion, and the monarchy, and cultivate morality, ethics, and good conduct towards students with 12 values strengthening characteristics and values Strengthening.

Section 4: Strengthening work skills, livelihoods, and life skills, including interest-response activities, aptitude, student life promotion. Activities meet the needs of learners according to their differences, integrate learning experiences with lifestyle, life skills, work with others, love and unity of working in a group, and building work skills. For the lifestyle that the executives and teachers must organize activities that students can use in their daily life, each activity has to be repeated and always focused on review so that students do not forget the activity. The enhancement of working skills, living and life skills consisted of 4 groups of activities, development activities, reducing learning time, increasing learning time for students at basic education level according to government policy.

In accordance with Sukanya Phuphuekok, it was found that the teaching and learning management is linked to the natural community and environment. Practice thinking, practicing, self-assessment and self-improvement, encouraging students to learn happily and successfully, and standard 6 organizes teaching and learning by cultivating morals, ethics and good traits and practicing them into habits.[8]

3. Create a series of activities to reduce learning time to increase the learning time of primary school students as follows:

The first area of learning management is activity series 1, learning management, namely activity 1: Poh Pong telling stories, activity 2: Finding a partner

The second area to enhance competency and learning is the activity series 2 to enhance competence and learning, i.e. Activity 1: Little Scientist, Activity 2: Fun Math.

The third aspect to strengthen character and values is activity series 3 to strengthen character and values, i.e. activity 1: Learn history through a movie screen, activity 2: Support religion.[9]

The Section 4 to strengthen working skills, livelihoods and life skills is the activity package 4, enhancing characters and values, namely Activity 1: Aerobics to Excellence, Activity 2: Organic Agriculture (Agriculture) with the aforementioned research results consistent with Jareerat Panprommin having studied the activities of students. It was found that the overall teaching and learning activities and activities were at a moderate level. Organize teaching and learning activities in circles and outdoor play activities.[10]

VI. RECOMMENDATIONS

A. Recommendations for Practices

The results of this research with suggestions and opinions of the experts, both administrators and teachers, who are expertise and experienced in learning time reduction and learning time, including

1. The relevant departments or schools should provide an environment that facilitates student learning, both inside and outside the classroom.

2. Relevant agencies should promote budget support for schools to organize activities to reduce learning time, increase learning time.

3. The relevant departments should arrange the content of the activities according to the age of the students.

4. Relevant agencies should organize activities to enhance physical performance for primary school children because it is an age with good physical development and growth.

A. Recommendations for Further Research

1. A study of development strategies, reduction of learning time, increasing learning time for teaching and learning management at basic education level.

2. A study of activities that reduce learning time and increase learning time for teaching and learning management at the basic education level.

CONCLUSION

Conclusion of the research on learning management to help students learn to integrate to complete 4 H, namely Head, Heart, Hand, Health Sport Day. To enhance competency and learning to focus on organizing activities to enhance 5 aspects of character enhancement, and 12 values to promote working skills, livelihood and life skills, including interest-response activities, aptitude, activities promoting students' livelihoods. Activities meet the needs of learners according to their differences, integrate learning experiences with lifestyle, life skills, work with others, love and unity of working in a group. Building work skills the lifestyle that the executives and teachers have to organize activities that students can use in their daily life each activity has to be repeated. They always focus on review so that students do not forget the activity. The enhancement of working skills, livelihoods and life skills consists of 4 groups of activities through activity for excellence..

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Development of Cognitive Learning Model based on Four Noble truths under the Office of the Secondary Educational Service Area

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Abstract— This research article aims to study 1) The cognitive learning condition of students under the Office of the Secondary Educational Service Area 2) Development of cognitive learning model according to the four noble to 3) to propose the cognitive learning model according to the Four Noble Truths. The study model is quantitative and qualitative research. The sample consists of 398 students and focus group discussion participated by 9 experts and document analysis. The results of the research are as follows: 1. The study results of cognitive learning conditions of students overall is a very good level, all found are the memory, interpretation, apply, discriminant analysis, valuation, and creativity respectively. The results of the students' development of cognitive learning models according to the Four Noble Truths consist of 1) cognitive learning ,there are 6 learning components; 2) learning according to Four Noble Truths, namely (1) determining problems (2) hypotheses (3) analyzing data (4) experimenting and collecting data. 3) The creative learning paradigm consists of 4 areas: (1) learning from experiences (2) learning life skills (3) learning information technology skills (4) brotherhood teaching Activities 3. The cognitive learning model according to the Four Noble Truths consists of: 1) Learning goals 2) Learning theory concepts that integrate with new knowledge 3) Realizing learning 4) Being able to apply knowledge to it which can be used appropriately for the age and current situation and 5) Learning paradigm in the modern world.
Index Terms— *Cognitive Learning, Four Noble Truths, Secondary Education.*

I. INTRODUCTION

The problem of teaching and learning of teachers is basic educational achievement. This is the evaluation of the basic education curriculum at the levels of Mathayom 3 and Grade 6, which were found to be unsatisfactory. This can be seen from the results of the National Basic Education Test (O-NET) in the core subjects. Most of them have an average score lower than the 50 percentage, especially in English, Mathematics and Science. Most of the scores are moderate, and low. In 2011, O-NET scores in the upper secondary level in Thai language subjects had an average score of 52.29 in Science subjects, and social studies The average score was 31.62 and 36.84, respectively, in the English Language subject, and mathematics, The average scores were 27.36 and 24.82, respectively, reflecting the different quality of Thai education between schools.[1]

Learners 'learning relative to other countries around the world and in ASEAN, the Program for International Student Assessment (PISA), which focuses on assessing students' ability to apply knowledge, Science Reading and maths from learning to apply to solve problems in life or real situations, it was found that PISA 2015 (2015) average score on science literacy, reading

literacy. And mathematics literacy among Thai students aged 15 was below the international average (OECD) of all subjects, with Thailand ranked 55th out of 72 countries, lower than Singapore and Vietnam, ranked 1 and 8, Extinguished respectively. [2] (Ministry of Education National Education Plan 2017-2036: 34-35.)

Bloom's conceptual cognition (Bloom) is a 6 level learning process: 1. Knowledge, memory 2. Understanding 3. Application 4. Analysis 5. Synthesis 6. [3] Valuation, it is the process of changing behavior from old to new or new behavior as a result of experience or practice. It is not a result of natural response or intuition or maturity. As the behavior changed, it must be changed quite permanently. It is considered learning. About the new content making learners more knowledge and understanding of the environment, it is a change that occurs in the brain or past experiences to learn. [4]

Buddhist principles are principles based on any cause and effect, both teaching and learning. In life solving problems it requires a process of thinking, or it can be called. "The Buddhist learning process which is a learning process for the prosperity and prosperity of wisdom." Especially the heart of the Buddha's teachings lies in the Four Noble Truths which the Lord Buddha thought to his

old disciples group of five Hermits at Isipatanamarugathayavan Forest, (Now called Sarnath) near Varanasi Clearly indicate their needs It was considered a correct practice, the fairness is not considered right. In Buddhism, it is believed that the learning process of the Four Noble Truths.[5]

The Lord Buddha has shown the cause of suffering and learning processes of the cessation of suffering, which is the process of cause and effect relationships in both the cause of suffering process and the cessation of suffering [6] As the monk namely Assi Thera (The last Thera image in the group of Phra Panchawakani) summarized to show Phra Saribut when he was still uptisaparijak, saying that "no matter what happened. The Tathagata speaks of the causes of the dharma and the quench of those dharma. " [7] (Phra Promkhunaporn (Por.or.Payutto), Buddhist Dictionary, Glossary 2011: 518)

From studying the problems mentioned above, the researcher is interested in researching the development of cognitive learning models according to the Four Noble Truths for educational institutions under the Office of the Secondary Educational Service Area to present the data obtained from this research to educational institutions under the Secondary Education Service Area Office. It is used as a guideline for learning development for students to have learning quality. Keep up with the changing situation of Thai society and the World society. Throughout the self-development process of students to continue their learning in the 21st century.

II. RESEARCH OBJECTIVES

1. To study the cognitive status according to the Four Noble Truths of educational institutions under the Secondary Education Area Office

2. To develop a cognitive learning model according to the Four Noble Truths for educational institutions.

3. To propose a learning model for cognitive behavior according to the Four Noble Truths for educational institutions.

III. RESEARCH METHODS

1. Scope of content

Subject research The Development of the Cognitive Learning Model according to the Four Noble Truths for Educational Institutions under the Secondary Educational Service Area Office, the researcher has set up the content scope in accordance with the following concepts, theories and related research.

1) Contents about Phutthiphisai 6 (Cognitive Domain) [8] including knowledge and understanding, use of side Analysis Synthetic and valuation aspects and the Four Noble Truths, namely suffering, Somuthai (cause of suffering), Nirot (cessation of sufferring) and Mak. (Noble path to cessation of sufferring) [9]

2) Content about learning, including meaning learning, learning process, characteristics of the 21st century learner.

3) Content on the learning model (Model) includes the importance and meaning of the model (Model) learning, types of learning models. The good nature of the learning style, popular evaluation model, learning model development process, and examining the learning style, creative learning paradigms and related research.

2. Population and sample scope

Population and sample groups used for research are as follows.

1) The population is middle and high school students. Schools under the Secondary Educational Service Area Office, Surin with, 25,509 people

2) The sample group is 398 junior high school students and senior high school students.

3. Key informants

1) Provider of important information in the study on the development of the four Noble Truths learning models for educational institutes, totaling 4 images / person, was selected in specific interviews with expertise in Buddhism.

2) Group Chat (Focus Group Discussion) to bring information obtained from group discussion (Focus Group Discussion).

4. Methods of conducting research

1) Research model The Development of the Cognitive Learning Model according to the Four Noble Truths for Educational Institutions under the Secondary Educational Service Area Office, this research is a mixed research method, mainly using quantitative research, and supporting qualitative research, and the researcher has carried out with the following steps.

Step 1: To study the condition of the cognitive learning model development according to the Four Noble Truths for educational institutions.

1. To study information on the development of the cognitive learning model according to the Four Noble Truths as follows:

1.1 Research sources are books, journals, textbooks, related research articles.

1.2 The research tool is a study of document for the development of a cognitive learning model according to the Four Noble Truths.

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1.3 To interview with experts about the development of cognitive learning model

1.4 Statistical analysis of content for percentage and Lisrel Program

2. Study data from questionnaires regarding the development of the cognitive model based on the Four Noble Truths for educational institutions as follows:

2.1 The research source is a sample of 398 high school students.

2.2 The research tool is a questionnaire concerning the development of the cognitive learning model according to the Four Noble Truths for educational institutions, under the Office of the Secondary Educational Service Area.

2.3 Statistical analysis of content for percentage and Lisrel Program

3. Study the condition of the cognitive learning model development according to the Four Noble Truths as follows:

3.1 The research source is the experts who have given interview data, 4 photos / person.

3.2 The research tool is an interview form on the development of the cognitive learning model according to the Four Noble Truths for educational institutions, under the Office of the Secondary Educational Service Area.

3.3 Statistical analysis of content for percentage and Lisrel Program

Step 2 Development of cognitive learning models according to the Four Noble Truths for educational institutions under the Office of the Secondary Educational Service Area are as follows :

1. Drafting questionnaires about the development of the cognitive learning model according to the Four Noble Truths for educational institutions as follows:

1.1 The research source is the results obtained from Objective 1.

1.2 The research tool is a questionnaire.

1.3 Statistical analysis of content for percentage and Lisrel Program

2. Discussion held with a focus group on the development of cognitive learning models.

2.1 The research source is 4 photos / person interviewing experts.

2.2 Research tool for interview.

Step 3 presents the development of cognitive learning models according to the Four Noble Truths for educational institutions.

1. To check the development of the pattern: to verify the validity of the cognitive learning model according to the Four Noble Truths for educational institutions as follows:

1.1 The research source is a sample of 398 high school students.

1.2 The research tool is a questionnaire.

1.3 Statistical analysis of content for percentage and Lisrel Program

2. Improvement and present action the format is

2.1 The research source is the main advisor. Co-advisor and researcher

2.2 The research tool is a questionnaire on the development of the cognitive learning model according to the Four Noble Truths.

2.3 Statistical analysis of content for percentage and Lisrel Program

4.2 Research tools

The research tools are as follows.

1.. Checklist form based on opinions of junior and senior high school students on the development of the 6 cognitive learning models according to the Four Noble Truths.

2. Interviewing is an interview form for the development of cognitive learning patterns according to the Four Noble Truths principles as follows:

1. To study the concept of the development of a cognitive learning model 6, namely, knowledge, understanding (Comprehension) in use (Application) Analysis, Synthesis, Evaluation.

2. To study the concept of developing a learning model in Phutthi Phisai according to the Four Noble Truths: Suffering, Happiness, Nirod, and Mak.

3. To inspect the quality of research instruments on The development of cognitive learning models according to the Four Noble Truths for educational institutions are as follows:

3.1 The draft questionnaire is presented to the Chairman and the two advisors for further review for further improvement.

4.3 Collection of information

Collection of research data on the development of cognitive learning models according to the Four Noble Truths for educational institutions as follows:

1. The researcher contacts and coordinates with the Ph.D. Program of Buddhist Education requesting for a letter to seek a coperation from a targe school to collect the filled up questionnaires from a sample of 398 people.

2. Researcher conducts field operations, to contact for collecting interview forms experts taking notes and audio recordings, signig the photos in the most realistic storage. They were then returned to check the correctness of the questionnaire for further analysis.

4.4 Data analysis

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Analysis of research data, the development of cognitive learning models according to the Four Noble Truths are as follows:

1. The researcher takes the collected gathered from the distribution of questionnaires such as interviews and group discussions, and use questionnaires to analyze in order to create new knowledge.

1.1 Quantitative data analysis : It is a statistical analysis of the content for percentage and Lisrel Program.

1.2 Qualitative data analysis The statistical analysis has been performed for percentage values and the Lisrel Program has been based on the results from expert interviews, group discussion. To analyze the content and check the correctness of the information according to the concept [10] .

IV. RESEARCH FINDINGS.

The results of analysis of student opinion questionnaire on the development of the cognitive learning model according to the Four Noble Truths for educational institutions, under the Office of the Secondary Educational Service Area by using statistical analysis of mean ($\overline{X}$) and standard deviation (S.D.) on cognitive learning conditions according to the Four Noble Truths under the Secondary Education Area Office from a sample of junior high school and senior high school students, under the Secondary Educational Service Area Office with 398 people, the results are as follows:

The learning conditions of the cognitive aspects of all 6 aspects	n= 398 persons		
	Student reviews		
	$\overline{x}$	S.D.	Level
1. Knowledge	3.76	0.54	high	1
2. Comprehension	3.49	0.62	high	5
3. Application	3.61	0.68	high	4
4. Analysis	3.01	0.72	medium	6
5. Synthesis	3.63	0.67	high	3
6. Evaluation	3.70	0.63	high	2
Total	3.52	0.55	high	

To propose a learning model on cognitive traits according to the Four Noble Truths for educational institutions under the Secondary Educational Service Area Office.

To propose a learning model on cognitive traits according to the Four Noble Truths for educational institutions under the Secondary Educational Service Area Office. And to be consistent with the results of the examination of the cognitive development model according to the Four Noble Truths by experts from the Focus Group Discussion meeting on examination of the learning model development of secondary school students in Phutthi Phisai (Cognitive Domain) according to the Four Noble Truths for educational institutions under the Secondary Education Service Area Office from groups discussion (Focus Group Discussion) can be summarized as follows.

1. To improve the learning style to have a clear sequence of elements.

2. To add up explanations, expand the vocabulary to be clear and complete.

3. To adjust the cognitive elements to be in line with the Four Noble Truths.

4. To examine the wrong words and complete correctness of the development of the learning pattern of secondary school students in the field of cognition according to the Four Noble Truths for educational institutions, under the Office of the Secondary Educational Service Area

5. The learning of students in the field of knowledge according to the principles of the theory 4 for educational institutions under the Secondary Education Area Office should go through the learning process by organizing cognitive learning activities according to the principles of Ariyasaj (Four Noble Truths)

5.1 Vocabulary learning activities are : teachers and students explain steps and play methods such as use of pictures, vocabulary, card and slide card machines.

5.2 Learning activities on life problems are : activities that enhance and develop life skills, which must be a student-centered activity. Life of students and be aware of the changes in society, choosing solutions for the appropriate reasons to have constructive results, making life go on with happiness.

5.3 activities to know the use of IT system is the learning of the students, to be a student who learns in the world and is updated up with the latest news. Digital technology transformation, Knowing how to develop oneself and being able to adapt to the changes that will occur in creating learning advantages in activities related to daily life.

5.4 Activities for friends, partners, and friends are learning activities for learners to learn together and help each other during joint learning activities. It is a creative activity aiming at students to have good study habits and good habits. "Friendship by Friendship" is an activity to train the use of ideas in the creation of work, promoting imagination and creativity according to the potential of the individual

V. DISCUSSIONS

Research results on the development of the learning model of secondary students in the field of cognition according to the Four Noble Truths for educational institutions under the Office of the Secondary Educational Service Area from the study of concepts, theories, principles, processes, analysis and synthesis of knowledge according to the cognitive learning elements according to the Four Noble Truths, it can be summarized as a body of knowledge for learning as an innovative knowledge set. The Four Noble Truth for educational institutions under the Secondary Educational Service Area Office gained knowledge as in Figure1
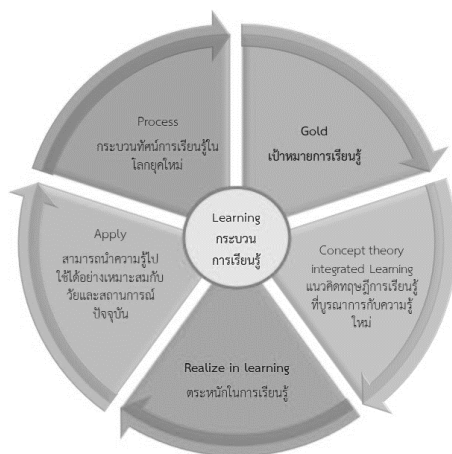
Figure 1 Knowledge gained from research L: CGRAP MODEL Source: Suthit Sawadee 2020

From Figure 1, the knowledge of the development of the learning model of secondary school students in the field of cognition according to the Four Noble Truths for Educational Institutions under the Secondary Educational Service Area Office, it is a New Process learning MODEL as follows.

G: Gold The learning goal is that the student's potentiality can be stimulated by the creative reflection of the teacher. It is the role that helps students Envision the learning process towards achieving the goals of 21st century learning, leadership is able to adapt appropriately to cause and effect as well as self-responsibility. To build good relationship with people including communication, and imagine the way of success

C: Concept theory integrated learning The concept of learning theory integrated with new knowledge is that students can use the concept theory integrated learning, integrated with new knowledge or leadership as a tool for developing themselves as good people, good, virtuous, and capable of developing new knowledge

R: Realize in learning : The awareness of learning is that students can create a brand and image. The work is

visible and reliable, to create a learning network to receive new information Learning is as valuable as starting a life going forward in the future.

A: Apply knowledge to be appropriate for age and situation. Students can apply knowledge appropriate to their age and current situation, i.e. students know their role in learning, and has a thorough resolution, does not ignore the little things, observant, has a good sense of time, has intelligence, hasa good leadership spirit, and has a positive mindset

T: The learning paradigm in the modern world : The learning paradigm in the modern world is that students know the analytical thinking process. New ways of operating are in line with the times and situations that are happening and that will happen in the future.

VI. RECOMMENDATIONS

Suggestions for applying research results

1. The results of the research have indicated that the overall cognitive learning, cognitive knowledge Use side Analysis Synthetic Evaluation is at a high level, so those involved parties should be aware of the potential development of learners in knowledge, understanding, and applying synthetic analysis to be more effective.

2. The results of the research have indicated that the overview of learning of the four noble truths to create a creative learning paradigm used to develop learning competencies for learners to increase the potential for learners to develop themselves.

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Design and Construction of Bamboo Stripping machine for Bamboo Basketry

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Abstract— Handicraft of bamboo weaving has been a tradition that has been inherited for a long time, by using bamboo strips to weave into shapes to make tools and appliances. The bamboo strips are from dividing the longitudinal bamboo trunks into thin strips. In which most farmers will make the strips by hand by using a big knife or sharp objects. As a result, it takes a long time to prepare the bamboo strips to be used in the weaving work. There is also a risk of accidents from the use of sharp objects, including the size of the bamboo strips that is not the same size. This research aims to design and construct bamboo strips by dividing the research into 2 steps: 1) designing and constructing bamboo strips and 2) testing the operation of the stripping machine. The designed machine can be easily moved because it is a small and lightweight machine which is designed using a single-phase electric motor with a voltage of 220 volts, 250 watts, etc. Power to drive the roller through the transmission belt to convey bamboo parts through two 7-degree sets of blades with sharp angles that are placed horizontally. The first blade acts to separate the bamboo parts with the bamboo strips and the second blade acts to sharpen the bamboo strips. The results of the working test of the stripping machine by adjusting the blade angle at 1 and the level into 4 values that are 3, 4, 5, and 6 degrees, it was found that the machine was able to produce bamboo strips in size 1.47, 1.20, 1.97 and 2.27 mm, respectively. The size of the punching line is suitable for weaving containers such as round bamboo basket, wicker basket, and bamboo basket, etc.

Index Terms— Bamboo, Bamboo Strip, Bamboo Stripping machine, Bamboo Weaving

I. INTRODUCTION

Handicraft made from bamboo is a tradition that has been inherited for a long time, by bringing bamboo that is easy to find locally through the processing to produce an appliance in daily life with simple techniques combined with art. Traditions and cultures accumulate in the wisdom of each locality [1]. Handicraft made from bamboo is the introduction of bamboo strips to weave into shapes to be used as various appliances. The strips are thin strips of bamboo [2]. By taking the bamboo stems cut into pieces and reducing the size to thin strips along the length of the bamboo to be used in basketry such as chicken coop, hats, bags, and household appliances, etc. [3], [4].

Basketry in the area of Chom Thong sub-district, Muang district, Phitsanulok province is a group of farmers who are mainly engaged in agriculture and have a career after the end of the harvest season is the production of bamboo wicker because in an area suitable for growing bamboo and there are many bamboos. Wicker products are characterized by their beauty, durability, and uniqueness. Most farmers use big knives or sharp objects to sharpen the bamboo stems into thin strips by hand, resulting in a long time to prepare for slicing to be used for wickerwork. There

is also a risk of accidents from the use of sharp objects including the size of bamboo strips that are not the same size [5], [6]. Therefore, this research aims to design and build a bamboo stripping machine. This will help reduce the time in the process of slicing preparation and getting quality bamboo strips, all strips are suitable and equal size, before being used for the next wicker production process.

II. RESEARCH OBJECTIVES

The objective of this research is to design and construction a bamboo stripping machine for bamboo basket.

III. RESEARCH METHODS

Research for the design and fabrication of bamboo stripping machine. The researcher performed it in 2 steps as follows.

Step 1: Design and build a bamboo stripping machine, the design of bamboo stripping machine will apply knowledge of agricultural machinery [7] and mechanical

design principles [8], [9]. So that the bamboo stripping machine should design to be able to move easily, strong, small, and lightweight. Using engineering programs to help design and drawing to see the layout and components of the machine [10]. This will enable the machine construction and component installation to be accurate and compliant as shown in Fig. 1 [11], with design details as follows. The structure of the machine is made of SS400 (mild steel), size 60 cm x 16.5 cm x 88 cm, and equipped with 2 blades. The first blade, size 19 cm x 7 cm x 0.5 cm, was installed in front of the machine to cut the bamboo. And the second one, size 12 cm x 7 cm x 0.5 cm, was installed on the back of the machine in order to sharpen out the bamboo burrs. With a sharp blade angle equal to 7 degrees, which is positioned horizontally on the blade, leveling the blade with a screw. The power and transmission unit consists of a 250 watt motor that transmits power through a belt, gear, and chain to drive the shaft. And a cylindrical roller with a diameter of 6 cm and a length of 6 cm for moving bamboo strips from the front of the machine to the back (Fig. 2).

Step 2: Checking the operation of the bamboo stripping machine. Therefore, the relationship between the work of different pieces created. The procedure is as follows:

1) Prepare one segment of the fresh bamboo by cutting out the middle of the bamboo and cut them to the same length as in Fig. 3.

2) Cut the bamboo into pieces of the same size as in Fig. 4 and measure the initial thickness of the bamboo pieces. After that, we started to experiment.

3) Adjust the angle of blade 1 (blade in front of the device) in the experiment, a total of 4 angles, that is, the blade angle is 3, 4, 5, and 6 degrees (Fig. 5).

4) Measure the speed of the rollers using a tachometer.

5) Feed the cut bamboo pieces through the front feeder of the bamboo stripping machine (Fig. 6) with 3 repetitions of 20 pieces each, each of which will produce 4 bamboo strips.

6) Measure the thickness of bamboo strips that have been sharpened with the second blade (the back blade of the machine) as shown in Fig. 6, then record the results and analyze the results.
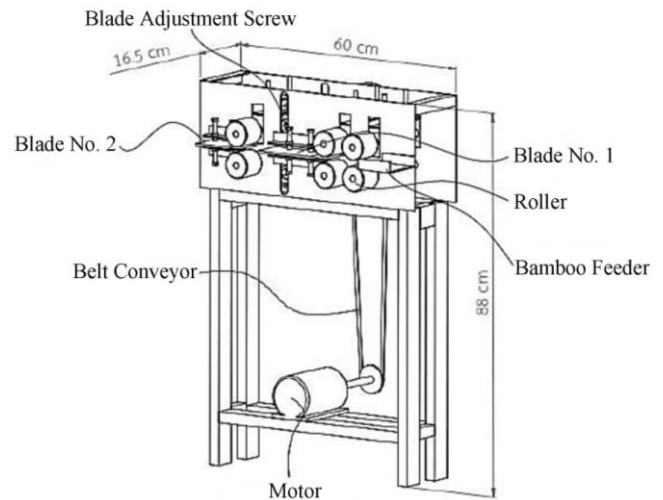
Fig. 1 The 3D model of the bamboo stripping machine

Fig. 2 Power unit and power transmission of the bamboo stripping machine

Fig. 3 A segment of bamboo

Fig. 4 Bamboo split for testing

Fig. 5 Blade number 1 of the bamboo stripping machine
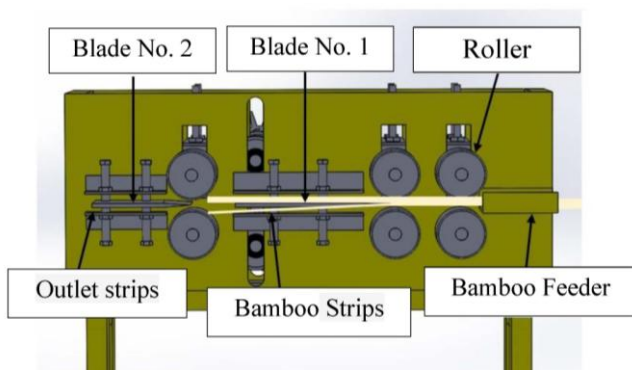
Fig. 6 Characteristics operation of the bamboo stripping machine

IV. RESULTS

From the design and build of a bamboo stripping machine, a single-phase electric motor, 250 watts power and speed in the experiment 740 rpm. By the transmission motor driven through the belt to the mechanical set of the bamboo stripping machine and the machine has 2 blades. The first blade (front blade) serves to cut bamboo and the second blade (back blade) serves to sharpen bamboo. The experiment was performed using a single segmented bamboo, the length was 37 cm, the bamboo was cut in width and thickness at an average of 16.45 mm and 8.95 mm, respectively. The experiment was performed by adjusting the angle of the first blade, 4 types of knife angle, consists of 3, 4, 5, and 6 degrees. From the experiment, it was found that the thickness of bamboo strips in each types of the blade is 1.47 mm, 1.20 mm, 1.97 mm, and 2.27 mm, respectively as shown in Fig. 7. From the graph, it can be seen that the blade angle of 4 degrees, bamboo strips have an average thickness of 1.20 mm, which is the least thickness compared to the angle of other blades as in Fig. 8.
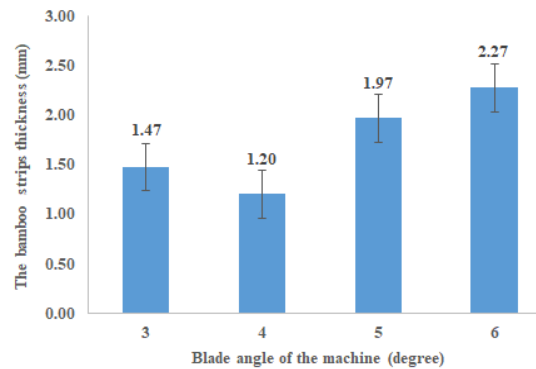
Fig. 7 The average of the bamboo strips thickness

Fig. 8 Characteristics of the bamboo strips with the fist blade (4 degree)

V. DISCUSSIONS

From experiment of the bamboo stripping machine operation, it was found that the thickness of bamboo strips when passing the first blade at an angle of 3 degrees was 1.47 mm, an angle of 4 degrees was 1.20 mm, an angle of 5 degrees was 1.97 mm, and an angle of 6 degrees was 2.27 mm. Due to the physical property of bamboo is composed of the longitudinal fibers of the trunk [12]. When in contact with the blade, the blade will shear, causing bamboo strips to decrease in thickness. On the other hand, the angle of the blade influences the shear of bamboo [13]. As a result, the

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thickness of bamboo strips during each blade angle was different. With the number of damaged bamboo strips decreased when the blade angle increases or the thickness of the bamboo strips increases because of the physical characteristics of bamboo that the fiber structure is longitudinal. When the blade shear and the appearance of bamboo strips will cause a change in the shape of bamboo strips in such a way that the bamboo does not fill the entire length. The suitable angle of the blade was 4 degrees and had an average thickness of 1.20 mm, which is the lowest thickness compared to other blades and is the thickness of bamboo strips that are suitable for weaving containers such as round bamboo baskets, wicker baskets, and bamboo baskets, etc. The optimum thickness for bamboo weaving ranges from 1.0 mm to 1.5 mm [14], which is strong and durable in use thickness.

VI. RECOMMENDATIONS

A. Recommendations for Practices

This bamboo stripping machine was designed and fabrication to reduce the size of bamboo to the thickness that is suitable for use in bamboo weaving crafts and reduces the risk of accidents from the use of sharp objects.

B. Recommendations for Further Research

Designing and building bamboos for handicrafts made from bamboo. There should be additional testing of other factors affecting the quality of the bamboo strips, such as the motor speed, age of bamboo, and the moisture content of bamboo, etc. to make the research more complete.

CONCLUSION

This research presents the design and construction of a bamboo stripping machine. The machine is designed with a size of 60 cm x 16.5 cm x 88 cm. It is equipped with 2 blades placed in a row. The first blade serves to cut the bamboo, size 19 cm x 7 cm x 0.5 cm, and the second blade serves to sharpen the bamboo, size 12 cm x 7 cm x 0.5 cm. A 250 watt AC electric motor was used as the power of the bamboo stripping machine, which the speed used in the experiment was 740 rpm. It was found that the angle of the first blade at 4 degrees, bamboo strips had the smallest thickness of 1.2 mm. Compared with other angles of the blade, the machine can work continuously and bamboo strips is uniform in size, which the size of bamboo strips is suitable for wicker handicrafts such as round bamboo basket, wicker basket, and bamboo basket, etc.

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Study on Consumptive Use of Water of Kangkong

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Abstract— The aim of this research was to evaluate the irrigation consumption for the growth of Kangkong (Ipomoea aquatica Forsk. Var. reptan). The system based on drip irrigation for crops. Drip irrigation system consisted of a 16-liter water tank, a water supply facilities and water supply systems. The water tank is raised 1,000 mm above the ground, connected by a 18 mm (1/2 in) PVC pipe at the conversion head. Drip tape is paying a hole measuring 100 mm. The rate of water distribution is equal to 2.20 liters per hour, consisting of 6 lines. Each line had a distance of 200 mm, according to the plantation. According to the characteristics of the plot, which had 60 wells and provides 25 days of water throughout the harvest of Kangkong. The research found that water consumption of Kangkong average of 108.5 mm or 4.4 millimeters per day. The average height was 334 millimeters per plant. The average weight was 8.96 grams per plant. The average root length was 89.6 mm. Number of leaves was 12 per plant. The average leaf length was 131.3 mm and the average yield of Kangkong throughout the season was 4.93 kg.

Index Terms— Kangkong, Plant Growth, Irrigation

I. INTRODUCTION

Kangkong (*Ipomoea aquatica* Forsk. Var. reptan.) can be planted all year round. It can grow in almost all soil types, especially for soil with high moisture content [1]. The maturity is short, 20-30 days [2]. In addition, Kangkong is also highly nutritious. It is beneficial for the body, helps maintain health, contains vitamin A that is beneficial for the eyes, high in dietary fiber and contains important nutrients including protein, calcium, iron, and phosphorus, etc. [3]. It also helps appetite and neutralizes the body [4]. It is a plant that is popular to produce for household consumption and commercially produced. Commercial production will be exported in the form of fresh plants and seeds are abundant in South and Southeast Asia [5], [6].

Water is the main factor for growing plants. When the plants receive sufficient and appropriate water for the time required by the plants, rich in nutrients, and have appropriate weather conditions, they can photosynthesis to produce food for use in growth and fully store nutrients. However, if growing plants that rely solely on seasonal rainwater, they may be prone to dehydration for some time [7]. The system of watering plants is a mechanism that can manage and control the amount of watering plants properly, conveniently, and with good results, can meet the needs of plants adequately. The methods of watering plants can be divided into four types: 1) surface watering, 2) sprinkling, 3) drip irrigation, and 4) subsurface watering. For drip irrigation, the plants are watered at one or more points on the soil surface or in the root zone. The water that is given to plants is in the form of small water beads, which are injected from a small nozzle that requires not much pressure or as a drop of water or a small stream of water flowing from a hose, nozzle, or plastic pipe [8]. Moreover, the drip irrigation system is a watering system with high water efficiency, low water consumption, and low water pressure. It can be used well with all types of plants and soils [9]. Therefore, this research aims to study water consumption for the growth of Kangkong. This can be used as information for farmers and people who are interested in general.

II. RESEARCH OBJECTIVES

The objective of this research is to study the water consumption of Kangkong during the harvesting period.

III. RESEARCH METHODS

A. Soil Analysis

Soil analysis was performed by sampling the soil by equal interval on diagonal lines [10] as shown in Fig. 1 at depths 0 cm, 5 cm, 10 cm, 15 cm, 20 cm, and 25 cm deep. The soil samples were then used to analyze the properties of

the soil texture, soil chemistry, and plant nutrients in the soil.

B. Design of Planting Plots and Watering Systems

The Kangkong planting plot is designed as a rectangle, 100 cm wide, 150 cm long. The plot is 25 cm deep and laid with a clear plastic sheet at the bottom to support the water as shown in Fig. 2. At the end of the plot, there is a 18 mm (1/2 in) PVC pipe to support the water from the planting area and transfer the water to a 1,200 mL measuring cylinder, which is used to measure the amount of water leftover from the planting plot. Then lift the planting plot to a height of 15 cm from the original ground level. The cultivation of Kangkong was carried out by sowing seeds into holes and covering 90 seeds, each with a distance of 10 cm. Designing a system for watering plants using a drip irrigation system, which the system will provide water using the principle of water flow from gravity. By designing the drip irrigation system, a 16-liter water tank was chosen as a water reservoir and supplying water to plants throughout the plot, which the water tank is raised 100 cm above the floor, connect with 18 mm (1/2 in) PVC pipe at the conversion head. Using drip tape with 100 mm drip emitters in the emitters flow rate equal to 2.20 liters per hour, number of 6 lines, which can be obtained from (1), each line has a distance equal to 200 mm, according to the nature of the planting plot as shown in Fig. 3 and Fig. 4.

C. Determination of Water Consumption of Kangkong

When designing Kangkong plantations and install a drip irrigation system, then calculate the amount of water that must be given to Kangkong. Starting with finding the wet area according to (2). Then determine the preliminary water needs of Kangkong, which is equal to 3 millimeters per day. The plants will consume 3 mm to 5 mm of water per day, to find out the precipitation rate as (3) [9], and find the amount of water needed for plants as (4), which is equal to 110 millimeters per day. Then experimented with watering Kangkong to determine the water consumption of Kangkong each day. By recording the excess water flowing from the plant field into the measuring cylinder at the end of the planting plot, in order to calculate the amount of water consumption of Kangkong.

D. Growth and Productivity of Kangkong

The study of the growth and yield of Kangkong during the harvesting period was 25 days. Data were collected and recorded every 7 days consist of stem height, average weight per plant, number of leaves per plant, root length, and yield of Kangkong during the harvesting period.

$$\text{Number of drip tape} = \left(\frac{\text{plot width}}{\text{drip tape laying distance}} \right) + 1 \quad (1)$$

$$\text{Wet zone} = \text{drip tape length} \times \text{wet zone width} \quad (2)$$

$$\text{Precipitation rate} = \frac{\text{water volume from tank}}{\text{wet area}} \quad (3)$$

$$\text{Consumptive water use} = \frac{\text{daily consumptive water use}}{\text{precipitation rate}} \quad (4)$$
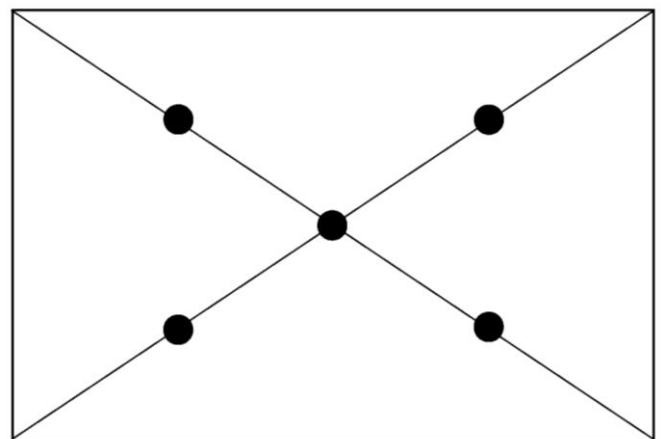
Fig. 1 Schematic of soil sampling positions

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Fig. 2 Lay the plastic sheet on the ground plot
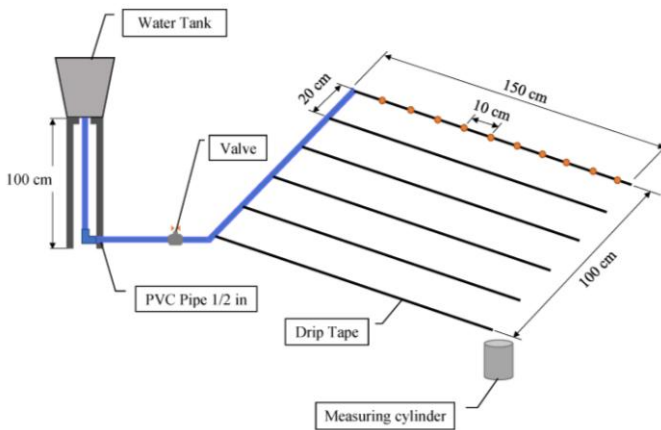
Fig. 3 Layout of drip irrigation system

Fig. 4 A self - made drip irrigation system

IV. RESULTS

The study of water consumption of Kangkong by drip irrigation system was divided into 4 parts as follows: 1) soil analysis showed that soil properties were 85.61 percent clay, 4.36 percent sand, and 10.03 percent silt. Used in the test is neutral pH and plant nutrients in the soil found that ammonia is low. Phosphorus is high and high levels of potassium. 2) design of planting plots and irrigation systems. The plant plots have an area of 1.5 square meters. The irrigation system is a drip system. Which uses a 16 liters water tank as a water reservoir and supplies water to the system. The water tank is raised 1,000 mm from the floor, connected by 18 mm (1/2in). PVC pipe at the conversion head and using a drip tape with a 100 mm drip emitters in the emitters flow rate equal to 2.20 liters per hour, 6 lines, each with a distance of 200 mm. 3) water consumption of Kangkong was found that water consumption for the growth of Kangkong during 25 days of harvest was 108.50 mm or 4.40 millimeters per day as shown in Table I and 4) productivity of Kangkong. The growth and yield of Kangkong was found that the average stem height was 334 millimeters per plant. The average weight of 8.96 grams per plant, the average number of leaves 12 leaves per plant, the average leaf length 13.13 cm, the average root length 139.4 millimeters per plant and the yield of Kangkong during harvest was 493 g or 382.67 grams per square meter as shown in Table II.

Table I The consumptive use of water of Kangkong

Time	Number of days	Consumptive use per day (mm)	Total of the consumptive use (mm)
19-26 Sep. 19	7	3.80	26.60
27 Sep.-2 Oct. 19	7	4.31	30.17
3-9 Oct. 19	7	4.59	32.13
10-13 Oct. 19	4	4.90	19.60
Average		**4.40**	**108.50**

Table II Growth and yield of Kangkong during harvesting period.

Indicator (associated variable)	Value
The yield weight per plot (kg)	4.93
The average plant height (mm)	334.00
The average plant weight (g)	8.96
The average root length (mm)	139.40
The average number of leaves (leaves)	12.00
The average leaf length (mm)	131.30

V. DISCUSSIONS

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From the research results, it was found that water consumption of Kangkong during the 25 day harvesting period was 108.5 mm or the average daily water consumption was 4.40 mm consistent with M. Kongkaew and other [11] that water consumption of Kangkong was studied by drip irrigation. It was found that water consumption of Kangkong 24 days after planting had an average water usage value of 106.5 mm or 4.44 millimeters per day. The growth of Kangkong was found to be consistent throughout the harvest period. The average stem height is 334 millimeters per plant. The average weight was 8.96 grams per plant. The number of leaves per plant was 12.00, the leaf length was 13.13 cm and the yield during the harvest was 493.00 grams consistent with the articles of C. Sudchit [12]. Which has reported information on the composition of the Kangkong, which grows 20 to 25 days throughout the harvest, has a plant height or length of 30-35 cm, and leaves 7-15 cm in length. The management of watering plants is important to affect crop yields. Therefore, if the plants receive the right amount of water for the time required by the plants rich in nutrients and have appropriate weather conditions plants grow quickly and produce high yields [13].

VI. RECOMMENDATIONS

A. Recommendations for Practices

Kangkong is a plant that has a short harvest time, high nutritional value, low water consumption, and less disturbing pests. Therefore, farmers and those interested in plants should be encouraged to generate income or create a career.

B. Recommendations for Further Research

Study of water consumption of Kangkong further studies of other factors related to growth such as evaporation rate and soil moisture etc.

CONCLUSION

Water consumption of Kangkong by drip irrigation system was found that water consumption of Kangkong was used for 25 days of harvest, the average water consumption was 108.5 mm or 4.40 millimeters per day. The average stem height is 334 millimeters per plant. The average weight was 8.96 grams per plant, the average root length was 139.4 millimeters per plant. The average number of leaves was 12 leaves per plant, the average leaf length was 131.3 mm and the yield of Kangkong during the harvest was 493.00 grams or 328.67 grams per square meter.

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Effect of Coconut Water on Root Induction of *Musa* (AA Group) 'KLUAI NAM THAI' *In Vitro*

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Abstract— 'Kluai Nam Thai' (Musa AA group) are rare in Thailand and it is at risk of extinction because of environmental changes and human behavior. Hence, the plant tissue culture technique is used for propagation. This research aimed to study the effect of coconut water on root induction of Kluai Nam Thai in vitro. The shootlets from laboratory were cultured on Murashige and Skoog (MS) medium supplemented with coconut water at concentrations 10, 15, 20, and 25% for 1 month. The experimental design was Completely Randomized Design (CRD). The results indicated that MS medium supplemented with 20% coconut water gave the highest average number of roots at 1.85 while MS medium supplemented with 10% coconut water gave the highest length of roots at 2.34 cm which were significantly different (p<0.01) from the other concentrations.

Index Terms— Musa (AA group) 'Kluai Nam Thai', Tissue Culture, Coconut Water, Micropropagation

I. INTRODUCTION

In Thailand, banana grants have been grown since the ancient time. There are local and imported species. There are many species such as Kluai Namwa, Kluai Hom and Kluai Nam Thai. In 2016, the total area for growing commercial bananas was 277.44 km^2 [1] 'Kluai Nam Thai' (*Musa acuminata*). It is in the AA genome group. Its pseudostem is about 2.5 meters high. Its diameter is not wider than 15 centimeters. Its outer spathes are thick. Its outer and inner bases are red and pink. The stems of its leaves are upright. The grooves of the steams are wide. The edges of the stems are pink. The lines of the leaves are pink and red. The stems of the flowers have hairs. The bracts are oval and quite long. The tips of the bracts are pointy and rolled up. The upper parts of the tips are purple and red. The lower parts of the tips are light purple and red. Each bunch has about five clusters of bananas. Each cluster has about 12-18 bananas. The bananas are similar to Kluai Hom Chan. Each banana is 2.00-2.05 centimeters wide and 10-11 centimeters long. The bananas are not as curved as Kluai Hom Chan. The tips of the bananas are big, but the tips are smaller than that of Kluai Hom Chan. The tips of the bananas have pistils. The banana peels are thinker than that of Kluai Hom Chan. The bananas have good and cool smells. The ripened bananas are yellow and darker than Kluai Hom Chan. The peels of the ripened bananas have black spots similar to that of Kluai Khai. The banana pulp is yellow and orange. The pulp is sweet [2]. Kluai Nam Thai are local bananas found in some province in the central part of Thailand. The bananas are not widely known and reproduced, and people do not properly maintain banana plots. These affect the reproduction of the bananas. So, this species has extinction risk. To promote and reproduce the bananas, plant tissue culture is an alternative to reproduce many bananas within short periods of time. The plant tissue culture is a well-known method. Hence, plant tissue culture technique is used for propagation. The reproductive parts of living plants such as shoots, axillary bud, flower stems, leaves, petiole, stem, pollens and seeds are cultured on MS medium [3]. Tissue cultured plants have constant growths. By growing the plants, the plants can be harvested at the same time. Moreover, the plants are without from diseases and insects. The plants also do not have the limitations of natural propagation. Growth regulators are important for the plant tissue culture. There are five main groups of the growth regulators including cytokinin, auxin, gibberellins, abscisic acid and ethylene. Each group is important for the plant tissue culture. Mostly, the appropriate ratios of auxin and cytokinin are used in order to effectively grow shoots and roots [4]. Since the growth regulators are expensive, organic substances are used in order to replace the growth regulators. Coconut water has organic substances that have main roles in controlling the growths of plants. The substances include auxin, cytokinin, gibberellins, abscisic acid and salicylic acid. Auxin in the coconut water is an indole-3-acetic acid (IAA) that regulates the growths of plants as well as the developments of shoots, roots, raw coconuts and areas with

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many tissues [5], [6]. Cytokinin is a component and a group of hormones that can stimulate the growths of plants, cell divisions, and the developments of the apical bud [7]. N. Sudhanyaratana and other [8] had the tissue culture and the analysis of ploidy stability of *Musa* (ABB) 'Namwa Mali-Ong'. The shoots of Kluai Namwa Mali-Ong were cultured on the MS medium [9] that N6-Benzyladenine (BA), α-Naphthalene Acetic Acid (NAA) and coconut water were added to. There were 15 recipes of the cultures. The shoots were cultured for eight weeks. It was found that the MS medium supplemented with 15% coconut water could resulted in shoots induction for 100% and root average 1.40 roots per plant. This was consistent with R. Senavongse and other [10] who studied the appropriate amounts of the coconut water for the growth of *Dendrobium Kontumense* Gagnep, which was cultured on the MS medium at the six concentrations of the coconut water (0%, 5%, 10%, 15%, 20% and 25%) for 8 weeks. It was found that the shoots cultured in the culture with the coconut water (15%) resulted in 11.50 roots per part, and the average length of the roots was 7.89 centimeters. A. Enik and other [11] studied the effects of the concentrations of the coconut water and IAA on the growth of Tribulus (*Tribulus Terrestris* L.) *in vitro*. The concentrations of the coconut water were 0%, 5%, 10% and 15%. The concentrations of IAA were 0.00 ppm, 0.15 ppm, 0.20 ppm and 0.25 ppm. It was found that the coconut water with the concentration of 15% and IAA with the concentration of 0.25 ppm could result in the highest number of roots (10.66 roots). The fastest period for developing the roots was 19.33 days.

According to the stated data, the plant tissue culture technique was used for reproducing 'Kluai Nam Thai' by studying the effects of the coconut water on the root induction *in vitro*. The research findings can be used as the guidelines for reproducing bananas by gardeners and other people interested in this technique in the future.

II. RESEARCH OBJECTIVES

The objective of this research aimed to study the effects of the coconut water on the root induction of 'Kluai Nam Thai' *in vitro*.

III. RESEARCH METHODS

To study the effects of the coconut water on the root induction of Kluai Nam Thai *in vitro*, the MS medium was prepared by adding the coconut water with the concentrations of 10%, 15%, 20% and 25%. The completely randomized design (CRD) was used. Each experiment was repeated for 4 times with 7 bottles per experiments. The shootlets with 2 or 3 leaves were selected

from the laboratory bottles according to the study of O. Selakorn and other [12], and then the shoots were taken to the sterilized cabinets. Then, the shoots were taken out of the bottles. The shoots were cut from the parts in order to culture the shoots on the prepared MS medium for each experiment. The bottles were placed on the shelves in the rooms with the controlled temperatures of 25-28 °C, the light intensities of 1,500-3,000 lux and the relative humidity of 60-80%. The shoots were cultured for 1 month. The number of the roots per plant and the lengths of the roots were recorded. Then, the data were analyzed and compared statistically with Duncan's Multiple–Range Test (DMRT). The experimental procedure are presented in Fig. 1.
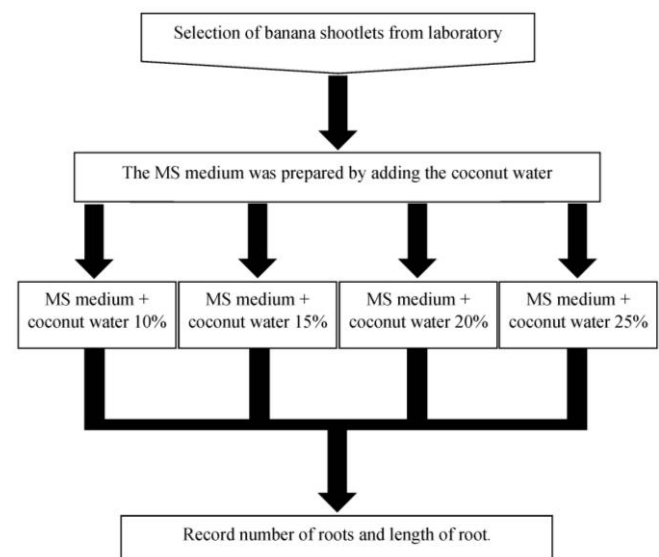
Fig. 1 Flow chart over all process

IV. RESULTS

From this studying the effects of the concentrations of the coconut water on the root induction of 'Kluai Nam Thai', the shootlets with 2 to 3 leaves from the culture bottles were selected and cultured on the MS medium have the coconut water with the concentrations of 10%, 15%, 20% and 25% for 1 month. It was found that the highest number of roots developed by using the coconut water with the concentration of 20% was 1.85 roots per plant, while the longest length of the roots developed by using the coconut water with the concentration of 10% was 2.34 centimeters as shown in Table 1. The roots were white, and the roots had many hairs (Fig. 2).

Table I Mean number of root and length of root of 'Kluai Nam Thai' cultured on MS medium Supplemented

with various concentration of coconut water after 1 month of culturing.

Treatment	Number of Root	Length of Root (cm)
MS medium + Coconut water 10 %	1.57ab[1/]	2.34a
MS medium + Coconut water 15 %	1.28b	1.95b
MS medium + Coconut water 20 %	1.85a	1.75c
MS medium + Coconut water 25 %	0.28c	0.85d
F-test	**	**
C.V. (%)	38.00	10.47

Remark 1/ Mean values followed by different letters in each column are significantly different according to F-test and DMRT.
** Significant difference at $P \leq 0.01$ level.
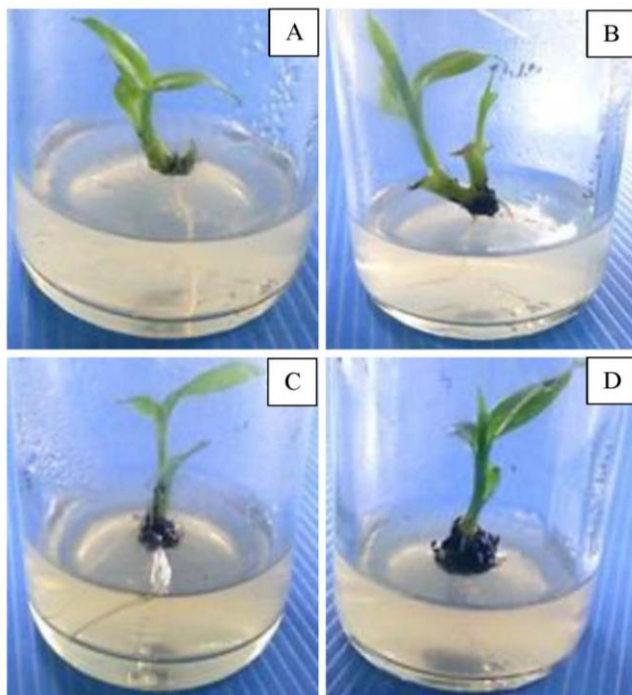
Fig. 2 The characteristics of the roots of the shoots of 'Kluai Nam Thai' cultured on the MS medium with various concentrations of the coconut water after 1 month of culturing.
    A) MS medium + coconut water 10%
    B) MS medium + coconut water 15%
    C) MS medium + coconut water 20%
    D) MS medium + coconut water 25%

V. DISCUSSIONS

According to the findings, it was found that the highest number of the roots developed by using the coconut water with the concentration of 20% averagely was 1.85 roots per plant. The longest length of the roots developed by using the coconut water with the concentration of 10% was 2.34 centimeters. This was consistent with the study of S. Neera and other [13] who studied the effects of cytokinin and the coconut water on the development of Kaentawan trucks in the sterilized conditions by using the MS medium having

the coconut water with the concentrations of 0%, 10%, 15% and 20% (volume by volume) within the culture period of 1 month. It was found that the highest number of the roots developed by using the recipe with the coconut water (15%) was three roots per part. Similarly, T. Jarujit [14] studied the effects of NAA, BA, medium supplement, sucrose and temperature on the growths of the shoots of Lueang Chanthaboon orchids by culturing the shoots with the average height of 1.2 centimeters from the seeds on the MS medium with the coconut water (15%) for 16 weeks. It was found that the number of the roots was 2.80 roots, and the average length of the roots was 1.30 centimeters. Additionally, Hafsan and other [15] studied the effects of the coconut water on the growths of the potatoes in the sterilized conditions by using the MS medium having the coconut water with the concentrations of 0%, 5%, 10% and 15%. It was found that the different concentrations of the coconut water resulted in the different developments of the roots. The coconut water with the concentration of 15% resulted in the highest number of the roots. The plants could effectively develop roots because the percentage of the sugar in the coconut water was high. It was also possible that the ratio of cytokinin and auxin was unbalanced [16].

VI. RECOMMENDATIONS

A. Recommendations for Practices

'Kluai Nam Thai' are rare local bananas. Hence, public organizations should promote and reproduce the bananas in order to conserve the species by using the plant tissue culture technique and referring to the findings of this study.

B. Recommendations for Further Research

The study on the effects of the coconut water on the root induction of 'Kluai Nam Thai' was an experiment conducted in the laboratory. Thus, further studies should experiment on growing the shoots with the roots developed in this study in order to prove that the banana trees are heathy and the trees can grow well as well as to complete this study.

CONCLUSION

In this study, the effects of the coconut water with the different concentrations on the root induction of 'Kluai Nam Thai' were studied by culturing the plants for 1 month. It was found that the coconut water with the concentration of 20% resulted in the highest number of the roots, and the coconut water with the concentration of 10% resulted in the longest length of the roots. So, the shoots were appropriate for being acclimatization and grown in plots.

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Buddhist Making Decision Model of Primary School Administrators in Socialist Republic of Vietnam

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Abstract— The objectives of this research are 1) to study the current state of decision-making of primary school administrators, 2) to study methods for developing Buddhist making decision of primary school administrators, 3) to propose a making decision model based on Buddhist principles of primary school administrators in The Socialist Republic of Vietnam. Mixed methods research has been used for research design. Quantitative research has used a population of 629 people, and qualitative data has been collected by interviewing 10 key informants and focus group discussion participated by 10 experts. Research results indicated that the current state of making decision of primary school administrators overall, administrators and teachers have opinions at a high level. In descending order is management seeks to understand the problems that arise in the administration, be able to analyze and correctly identify problems, and listen to the opinions of all participants to analyze the best options and decide on the best solution, putting the decisions into practice and evaluate them further. Methods for developing decisions according to the Buddhist principles of the executives indicated 5 making decision steps: 1) problem definition, 2) education, alternative approach, 3) selection of alternatives, 4) alternative compliance, 5) evaluation and correction of defects. A Buddhist making decision model of primary school administrators, in The Socialist Republic of Vietnam consists of 4 parts: Part 1 the lead part is the environment, both inside and outside the school, Part 2 the model consists of a work system, which is a 5-step making decision process namely, making decisions, knowledgeable, competent personnel with principles by integrating with the four Noble Truths, knowing the problem, knowing the root cause of the problem. Part 3, knowing how to solve problems and follow the correct solution. Part 4, conditions for success which depends on the context of management decisions.

Index Terms— *Buddhist making decision, Administrators, The Socialist Republic of Vietnam.*

I. INTRODUCTION

Providing education in Vietnam is a decentralized system. Each province is responsible for providing their own education, for example in Ho Chi Minh City, formerly Saigon City, there are two systems of education in Vietnam ; formal education and non-formal education. System For formal education, is organized from kindergarten to university. Vietnamese children aged 5 will attend Kindergarten, at age 6 they will attend elementary school for 5 years form age 6-11, after that they will enter into junior high school for 4 years from 11-15 years old and senior high school in another 3 years from 15-18 years old, and then enrolled in a university for higher education. Vietnamese students study in bachelor's degree for 4-6 years, master's degree 2-3 years and doctoral degree 3-4 years. [1]

Therefore, the Vietnamese education is organized as is a 5: 4: 3: 4 system, i.e. 5 years of elementary education, 4 years of junior high school, 3 years of high school and 4 years of bachelor's degree (unlike Thailand, which is organized as a 6: 3: 3: 4 system). The academic life of Vietnamese children began to change at the end of

junior high school due to the need for entrance examinations to attend schools or high school classes nationwide. Rather, it is an examination organized by the provincial educational districts in each province, students who pass the exam will be selected to enter into the province's high school, and continue to study in a university. For those who fail the exam, they will continue to enter the junior vocational school and the late vocational school. And can go out to pursue a career or take university entrance exams as well upon completion of the early vocational education But if he doesn't pass, he goes on to study at the end of a diploma level at a vocational college which takes 2 years to complete [2]

Vietnamese compulsory education is 9 years, i.e. from primary education 5 years and lower secondary education 4 years in a total of 9 years for Ho Chi Minh City. Compulsory education is 12 years from grade 1 to grade 6. Informal education is the provision of education to those who are unable or unwilling to enter formal education in the form of lifelong education. with continuing education centers to teach from literacy to secondary education recreation and short-term careers for workers and then by

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spending time studying at night. And in colleges and universities in general, non-formal education is taught to workers who have studied part-time as well.

The Education Administration of Ho Chi Minh City has a program of educational reform between 2000-2015, divided into 3 phases of five years. The compulsory education extension is for 9 years, i.e. Grade 1-m 3, the second five-year term. It is sending teachers and students to study abroad. And the third five year term It is the development of modern education and teacher development. Educational management in Ho Chi Minh City has a number of initiatives including recruiting 100% of 5-year-old children to attend Kindergarten and promoting English language skills for both high school and vocational students.

In addition, private individuals are encouraged to invest in education according to government programs. And international schools, other foreign languages are being offered, for other languages besides English such as German, French, Chinese, Japanese and Korean in schools. And language centers, particularly in Vietnam, have school assessments based on high school entrance examinations, and Vietnamese language quality assessment, Vietnamese literature, English and mathematics

Currently, Vietnam has five aspects of education management: 1) Pre-School Education, consisting of raising children, children of 6 months to 3 years old and kindergarten for 3-5 years old 2) Ordinary (5-4-3) primary education is compulsory for 5 years, grade 1-5, lower secondary education is 6th- grade. 9. High school level is 10-12 class 3) Technical and vocational education. There are comparable at both the lower and upper secondary levels. 4) Higher education. Divided into associate degrees (Associate degree) and degree level 5) continuing education, it is education for people who missed an educational opportunity in the general and vocational system. Vietnamese 12-year general education is aimed to Give people a spirit of socialism with national identity and have professional abilities [3]

Educational Administration in Vietnam has applied technology to the school administration by using the Basic Education Development Index (IDEB) for monitoring and evaluation. "Attendance" and "Learning Development" for Grade 4, M.2 and M.5 students, which the IDEB Index will be used for assessing the performance of the School and the Director every 2 years by having made public compared with the same national, state and municipal averages

By the said assessment it increases the efficiency of the educational institution administration with the information system and it can make accountability for student academic achievement, transparent contributing to community investigation and engagement. This is a tool for local governments to award good quality schools. and provide a budget for the development of educational institutions facing quality problems in order to reduce educational disparities in the form of an educational institution quality development fund to finance the development of schools that need quality improvement [4]

The problem with primary education management in Vietnam is that the emphasis on teaching children to do well and get high credit, but not interested in the use of the idea has been influenced since feudal times. Because it is thought that students must study well in order to work in government service Master office and focus on wealth Such ideas have resulted in the present society. Study well in order to do a good job and earn money. Because at present various departments in Vietnam, if the Vietnamese who applies for a job is not Con ông cháu cha (Con Chá)ja), it means a high-ranking daughter, the opportunity to do a good job, earn a high salary is are quite a few if the accumulated points are not good after graduation, so nowadays Vietnamese people focus on their children to study well in order to active high marks In order to find a good job, that is the present idea of education. [5] including

1) focus on talent, but not to focus on the knowledge gained after graduation; More than knowledge that will be used in social and organizational development. 3) Not to care about having knowledge to demonstrate credibility in their field. 4) wishing to study higher, but not to care about the roles or duties that the graduated person would be responsible for his society and the in solved organization, which is consistent with the research of Weerathep Pathumcharoenwattana and the team on "A Comparative Synthesis of Educational Policies and Strategies of Vietnam, Malaysia and Indonesia and Thailand "The research results indicated that In Vietnam, the Doi Moi policy has been established, and an important mechanism that is the common point of both Vietnam, Malaysia and Indonesia.

Having an education policy that is continuous and a long-term plan can be put into action, having a department that is responsible for implementing a particular education policy, having a stable political system and a leadership and management of a country with a clear educational vision, and measures to promote cooperation with networks in the management and support of education from a comparative study of educational policies and strategies of the three countries and also Thailand, there are educational policy proposals and strategies for educational reform for Thailand as follows: Policy development and monitoring of educational policy implementation. Teacher Development Policy, Decentralized Education Policy and Policy on building responsibility for education management,and educational measurement and evaluation policies [6]

From history and the importance of the problem, the researcher is interested in studying Buddhist decision-making patterns of primary school administrators, Socialist Republic of Vietnam to find out what are the current management's conditions and decisions. To bring the results of the study to be suggested as a guideline for the management of the educational institution to be effective in further education administration.

II. RESEARCH OBJECTVES

1. To study the current conditions in the decision making of elementary school administrators, Socialist Republic of Vietnam

2. To study methods for developing Buddhist decisions of primary school administrators, Socialist Republic of Vietnam

3. To propose a Buddhist decision-making model of primary school administrators, Socialist Republic of Vietnam.

III. RESEARCH METHODS

Step 1: To study the current conditions in the decisions of elementary school administrators. in Socialist Republic of Vietnam comprising 3 steps: 1) to study documents on the current state in executive decision Sources: Books, articles, textbooks, research, website, tools: Study form, Document analysis: Content analysis, Content Analysis 2) to study current state in Executive decision By distributing questionnaires to the executives 629 primary school administrators and teachers. Data analysis: percentage, frequency, mean, standard deviation. Results: Obtaining current state in decision-making of primary school administrators and 3) interview 10 executives in order to achieve Data analysis by Content Analysis.

The second step is to study the method for developing the Buddhist decision-making of the primary school administrators, comprising 2 steps: 1) by Drafting the method for developing the Buddhist decision-making of the administrators. Source: Results from Objective 1 Tools: Document study form Data Analysis, Content Analysis, Content Analysis Results: A method for developing decision-making according to the principles of the administrators (Draft 1) 2) Developing by a discussion group Source: Experts / Academic / School Directors By selecting the specific criteria for the selection of tools: interview form derived from the method of developing the Buddhist decision-making method of the executives (Draft 1) Data analysis: Content analysis, the results obtained: the method, and Developed Buddhist-Based Decisions of Elementary School Administrators (Draft 2)

Step 3: To propose a Buddhist decision-making model of primary school administrators In the Socialist Republic of Vietnam comprising 2 steps: 1) to check with the advisor / co-advisor Researcher Tool: Forming Study Document, Data analysis: content analysis, Outcome: A Buddhist decision-making model of the primary school administrators in Socialist Republic of Vietnam 2) to revise : revise and present sources of information: advisors / co-advisors, researcher, tools: study documents Data analysis: content analysis Outcome: A Buddhist decision-making model of the primary school administrators in the Socialist Republic of Vietnam.

IV. RESEARCH RESULTS.

1. The study results of current conditions in the decision making of primary school administrators in the Socialist Republic of Vietnam the results of the research indicated that administrators, deputy administrators and teachers have opinions on the current situation in decision making of primary school administrators. in the Socialist Republic of Vietnam, all 5 aspects of the overall opinion are at high level, in descending order is evaluation and correction of defects. The selection of alternatives Education, looking for alternatives in terms of performance of alternatives and definition of problems, respectively, as indicated in Table 1.as follows ,

Table 1 shows the mean, and the standard deviation of the respondents based on their opinions about the current state of decision making of primary school administrators in Socialist Republic of Vietnam, all 5 aspects are :

	Studied variables	$\overline{X}$	S.D	Level
1.	Problem definition	3.99	0.402	High
2.	looking for alternatives	3.99	0.446	High
3.	The selection of alternatives	4.04	0.463	High
4.	Alternative compliance	3.99	0.433	High
5.	Evaluation and correction of defects	4.04	0.466	High
	Total	4.01	0.309	High

1) Problem definition in descending order, 3 ranks: executives try to understand the problems arising in management There is a search for the source of problems within the school. When problems have arisen arise within the school, The management has identified the essence of the problem, and the one with the least opinion is that the management collects the information, that is a component of the problem leading to problem determination.

The results of the interview are 1) to study the problems that has arisen, how serious the management had to understand the current situation and analyze the external and internal environment that impacted the organization. Reality Potential of various factors 2) Identify the problem, starting with the decision-maker must accurately analyze and identify the problem to be able to implement steps shitter it is possible, can achieve these goals or not, and working on research to find existing problems, identify symptoms of the problem and, considering the importance of the problem

2) educational options sorted out from descending to least 3 ranking, namely executives listening to opinions and reasons of all parties. Executives use their experience in alternative education creatively, and management determines how to solve problems based on various information and the environment is generally assembled and the one that has the least opinion is that when there is an operational problem, the administrators have a solution to the problem that has occurred.

The results of the interviews are 1) searching for solutions to problems following more than one or two different approaches to analyze the best approach; to count that the decision is correct Information for decision making 3) Based on information in 3 areas: information about oneself Information about society or environment and information about knowledge or academic source.

3) selection of alternatives meets is a high level of opinion. Sorted out from descending to less, the top 3 ranks are: executives using their experience in creative selection of alternatives. The management has the potential risks and benefits to be compared for a decision making, and executives adopt various rules by evaluating those information honestly in every aspect with due diligence. And with the least opinion, management is aware of the responses to subordinates' choices by :the interview results are 1) analyzing the best options, then deciding on the best solutions and implementing steps to solve the problems; 2) analyzing and selecting the best options with information of problem, guidelines for solving problems accompanying selection of alternatives to make a decisive decision. 3) Finding solutions to problems is the 4 Noble Truth principle. Excellent in solving 4 problems: suffering, discomfort, uneasiness, uneasiness, determination of the cause of suffering that arises, to find ways to escape suffering or end suffering and path, the way to end suffering by following the guidelines considered appropriate.

4) Alternative Compliance meets is a high level of opinion. Sorted from descending to less, 3 ranks, including executives, providing a consultation line Discussion held with school administration Administrators following the options they have made and administrators have developed action plans that are consistent with the school objectives. And the one with the least views is that the administrators inform the teachers and students of news and movements in the education industry.

Interview results include 1) implementing the decision-making results and further evaluating the results by following the alternatives, a procedure must be established; 2) a system must be able to compare the selections into numbers to reach even if it was a measure the figures used for comparison may be form of score, weight or amount of units, with clear indications to be considered and acted correctly. 3) Defining a program of decision-making by specifying schedules, carrying out budgetary work and the person involved in the practice, there should be a clear delegation of authority, and provide a communication system that will help make accepted decisions.

5) Evaluation and correction of defects meets is a high level of opinion. In descending order, 3 rankings are: management takes the evaluation results into consideration of the effectiveness of the alternatives, the management used the evaluation results to improve options, and management organizes various performance assessments using group-based and the one with the least opinion is that the executives use the information assemble in the evaluation of work properly.

The results of the interviews indicated that 1) the establishment of control and evaluation systems This will help management get feedback about the performance that the target has been met or not. Feedback will help management solve the problem, or make a new decision 2) to learn and bring it as a lesson in making decisions in the future, going to correct the flaws of decision-making. 3) Help to recognize strengths, weaknesses, and past mistakes. The results will enable management's future decisions to be systematic and accurate in a faster time.

2. Results of the study of methods for developing Buddhist decision-making of primary school administrators in the Socialist Republic of Vietnam is :

Methods for developing decision-making according to the Buddhist principles of primary school administrators by following the 4-part decision development method and 5-step decision-making process: 1) problem definition realized by determining the problem will be different. 2) Educational options consider the importance of factors 3) priority in the selection of alternatives by considering, comparing advantages and disadvantages, utilizing experience in constructive selection of alternatives, 4) implementation of alternatives, by planning appropriate action, 5) evaluation and remediation by monitoring The evaluation results determine the effectiveness of alternatives.

3. to propose a Buddhist decision-making model of primary school administrators, The Socialist Republic of Vietnam is :

Part 1, the leading part is 1) Environment (Environment), both inside and outside the school 2) Principle including decision factor and executive decision behavior 3) Objectives and importance of the 3 decisions side.

Part 2: The model consists of 1) the work system (System) consists of a 5-step decision-making process, namely (1) problem definition (2) alternative education (3) alternative selection (4) practice Select (5) Evaluation and improvement of deficiencies 2) Management Process: consists of 8 decision processes, including: Step 1, problem determination, step 2, setting decision criteria, step 3, Importance in each criterion, Step 4, Develop alternatives, Step 5, Analyze options, Step 6, Choose appropriate options, Step 7, Navigate to action Step 8, Evaluate decisions.

Part 3: The implementation process consists of 1) Structure, interconnection of components, 2) Decision Making, such as administrators, teachers and personnel with knowledge, competence, principles, and a place to support budget, Salary 3) Assessment guidelines, Establish meant of guidelines and tools for model evaluation. For the purpose of examining how much the patterns function as they have designed, in accordance with the Four Noble Truths, to replace from suffering by problem, to replace the cause that causes suffering by cause of problems, to replace the way to end suffering by a solution and follow the correct solution in order to get the desired result.

Part 4 : conditions for success, depending on the context of management's decisions, there may be environmental factors: 1) limited time, 2) limited information, 3) limited costs, 4) habit restrictions, and 5) limitations. The limit action on tools and appliances is not enough, and it is important to know. Decision-making abilities of elementary school administrators, The Socialist Republic of Vietnam (Figure 1)
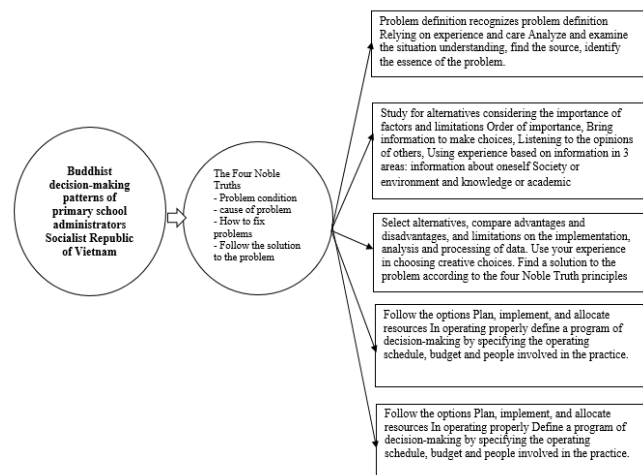
V. Discussion

The researcher found important points to be discussed about the Buddhist decision-making patterns of primary school administrators in The Socialist Republic of Vietnam is as follows :

1. The study results of current conditions in the decision making of primary school administrators in the Socialist Republic of Vietnam The results of the research indicated that administrators, deputy administrators and teachers have opinions on the current situation in decision making of primary school administrators in the Socialist Republic of Vietnam, all 5 aspects of the overall opinion are of high level in descending order in Evaluation and correction of defects. The selection of alternatives Education, looking for alternatives, Alternative compliance and sequential problem definition assertively.

1) Problem definition In descending order, 3 ranks: executives try to understand problems that arise in management. There is a search for the source of problems within the school, and when problems arise within the school, the management has identified the essence of the problem. And the one with the least opinion is that the management collects the information, that is a component of the problem to lead to problem determination

1) Study the problems that arise, how serious they are, the management must understand the current situation and analyze the external and internal environment that affects the organization. Reality Potential of various factors 2) Identify the problem, starting with the decision-maker must accurately analyze and identify the problem to be able to implement steps. to find out whether it is a possible to achieve these goals or not, and to work on research to find existing problems, identify symptoms of the problem, and consider the importance of the problem

2) educational options sorted from descending to least 3 ranking, namely executives listening to opinions and

reasons of all parties. Executives use their experience in alternative education creatively. and management determines how to solve problems based on various information And the environment is generally assembled, and the one that has the least opinion is that when there is an operational problem, the administrators have a solution to the problem that has occurred.

The results of the interviews are 1) searching for solutions to problems following more than one or two different approaches to analyze the best approach; to count that the decision is correct Information for decision making 3) Based on information in 3 areas: information about oneself Information about society or environment and information about knowledge or academic source.

3) selection of alternatives meets is a high level of opinion. Sorted from descending to less, the top 3 ranks are: executives using their experience in creative selection of alternatives. The management has the potential risks and benefits to be compared for a decision making. And executives adopt various rules by evaluating those information honestly in every aspect with due diligence. And the one with the least comments is that management is aware of the response to the subordinates' choices. The results of the interview are 1) to analyze the best options and decide on the best solution and must be implemented as a step towards solving the problem 2) Analysis and selection of the best options with information on the problem. Guidelines for solving problems accompanying selection of alternatives to make a decisive decision. 3) Finding solutions to problems is the 4 Noble Truth principle. Excellent in solving 4 problems: suffering, discomfort, uneasiness, determination of the cause of suffering that arises, to find ways to escape suffering or end suffering and path, The way to end suffering by following the guidelines considered appropriate.

4) Alternative Compliance meets a high level of opinion. Sorted from descending to less, 3 ranks, including executives, providing a consultation line discussion held with school administration Administrators follow the options they have made, and administrators develop action plans that are consistent with the school objectives. and the one with the least views is that the administrators inform the teachers and students of news and movements in the education industry. The interview results are :1) The decision-making results are put into action and further evaluated by following alternatives, a procedure must be established; 2) a system must be able to compare the selections into numbers, even if they are to be measured. The figures used for comparison may be form of score, weight or amount of units, with clear indications to be considered and acted correctly. 3) to define a program of decision-making by specifying schedules, carrying out budgetary work and the person involved in the practice,

there should be a clear delegation of authority, and provide a communication system that will help make accepted decisions.

5) Evaluation and correction of defects meets a high level of opinion. In descending order, 3 rankings are: management takes the evaluation results into consideration of the effectiveness of the alternatives. The management used the evaluation results to improve options, and management organizes various performance assessments using group-based, and the one with the least opinion is that the executives use the information assembly in the evaluation of work properly, and the results of the interview indicated that 1) Establishing a control and evaluation system. This will help management get feedback about the performance that the target has been met or not. Feedback will help management solve the problem, or make a new decision 2) to learn and bring it as a lesson in making decisions in the future going to correct the flaws of decision-making. 3) Helping to recognize strengths, weaknesses, and past mistakes. The results will enable management's future decisions to be systematic and accurate in a faster time.

The above research has indicated that administrators, deputy administrators and teachers of elementary school in the Socialist Republic of Vietnam is of a step-by-step decision-making process. Problem definition studying for alternatives, select alternatives, alternative practice and evaluation and bug fixes which is consistent with the research of Phra Kru Phalad Krai Sorn Dhammaramsee (Khamnoi) who has researched on "Buddhist decision-making models for school administrators. Office of the Secondary Educational Service Area in Bangkok " [7]

The research results are found that current problems concerning the decision of the school administrators Area office Secondary Education Area 1, Bangkok Both in personnel management, academic administration, general administration, budget management, in general, it was found that in a high average. For current problems, decision making in all 4 areas such as teachers lack of knowledge and expertise. Recruitment and selection of personnel lack of budget for training seminars, continuous human resource development, monitoring the work of personnel teaching and school activities, personnel training lack of training in good personnel management, general administration work, working to improve problems and obstacles in operations. Security maintenance building use public relations to disseminate the school's work and affairs, promoting and supporting policy work, education is policy-based.

2. Results of the study of methods for developing Buddhist decision-making of primary school administrators in The Socialist Republic of Vietnam is the method for

developing the Buddhist decision-making of elementary school administrators, namely, the 4-part decision development method and the 5-step decision-making process are 1) Problem definition realized by determining the problem will be different. 2) Educational options. Considering the importance of factors 3) priority in the selection of alternatives. Considering comparing advantages and disadvantages, utilizing experience in constructive selection of alternatives, 4) implementation of alternatives, planning appropriate action, 5) evaluation and remediation. Monitoring the evaluation results determine the effectiveness of alternatives.

The results of this research are consistent with the research of Jaruwan Wichitwongwan [8] studying the decision making of administrators and the performance of elementary school teachers. The research results are found that 1) Executive decisions Elementary school 12 found that by the common picture and each aspect in a very high order The descending arithmetic mean is (1) problem definition, (2) study of alternatives and (3) selection of alternatives. 2) Performance of elementary school teachers in the Socialist Republic of Vietnam, 12, found that :

The common picture and aspects are at high level, the first three descending arithmetic mean values are (1) acting as a good example for learners, (2) collaborating with others in a creative educational setting, and (3). A) making decisions on activities With words about the results that will happen to the students, 3) Executive decisions on the performance of primary school teachers in the Socialist Republic of Vietnam have a relationship with statistical significance.

3. Propose a Buddhist decision-making model of primary school administrators in the Socialist Republic of Vietnam is :

Part 1, the leading part is 1) Environment (Environment), both inside and outside the school 2) Principle including decision factor and executive decision behavior 3) Objectives and importance of the 3 decisions side.

Part 2: The model consists of 1) the work system (System) is the 5-step decision-making process, namely (1) problem definition (2) alternative education (3) selection of alternatives (4) practice Select (5) Evaluation and Correction 2) Management Process including the 8-step decision-making process is: Step 1, Problem determination, Step 2, Determination of decision criteria, Step 3 Focus on each criteria, Step 4, Develop alternatives, Step 5, Analyze alternatives, Step 6, Choose Appropriate Options Step 7, Navigate to Action Step 8 Evaluate Decisions

Part 3: The implementation process consists of 1) Structure, interconnection of components, 2) Decision Making, such as administrators, teachers and personnel with knowledge, competence, principles, and a place to support budget, Salary 3) Assessment guidelines, establishment of guidelines and tools for model evaluation. For the purpose of examining how much the patterns function as they have been designed, in accordance with the Four Noble Truths, to replace suffering by problem, to replace the cause that causes suffering by cause of problems, to replace the way to end suffering by a solution and to follow the correct solution in order get the desired results.

Part 4 conditions for success depending on the context of management's decisions, there may be environmental factors: 1) limited time, 2) limited information, 3) limited costs, 4) habit restrictions, and 5) limitations. The limit on tools and appliances is not enough, and it is important to know. Decision-making abilities of elementary school administrators in the Socialist Republic of Vietnam. The research results of decision-making models according to the Buddhist principles of primary school administrators in the Socialist Republic of Vietnam indicated that making decisions according to the Buddhist principles requires knowledge and competence of the administrators, integrated with the principles of Buddhism, the Four Noble Truths and the 5 Research Procedures by which the research results are consistent with the research of Jaruwan Wichitwongwan [9] who has studied the decision of the administrators and the performance of elementary school teachers. The research results are found that 1) Executive decisions Elementary school 12 found that by the common picture and each aspect In a very high order The descending arithmetic mean value is (1) problem definition, (2) alternative study, and (3) alternative selection. 2) Performance of elementary school teachers in the Socialist Republic of Vietnam 12, it is found that the common picture and the individual aspects are at a high level. The first three descending arithmetic mean values are (1) acting as a good example for learners (2) cooperation with others and (3) decision-making to perform activities with words about the results that will happen to the students 3) Executive decisions on the performance of primary school teachers in the Socialist Republic of Vietnam have a relationship with statistical significance, and research work of Phra Phrabat Krai Sorn Dhammarat (Khamnoi) [10] who has conducted research on "Buddhist decision-making models for school administrators. The secondary education service area office in Bangkok. The Buddhist decision-making model for the school administrators was found that the Buddhist decision-making for the school administrators The principles of Buddhism are applied to decision making according to the 7-step Phangate and Attner theory using the "DDM Model" which is the model for decision making, academic administration, budgeting, personnel work and general work in accordance with the Four Noble Truths.

With yonisomnsikarn Is the outcome of a decision and is used in the management of the work with best efficiency.

VII. CONCLUSION

Buddhist decision-making models of primary school administrators in the Socialist Republic of Vietnam has important steps in making decisions including: 1) defining problems, recognizing problems, relying on experience and carefully analyzing and exam Ming the situation, understanding, finding sources, and classifying the essence of the problem. 2) Studying for alternatives. considering the importance of factors and limitations of order of importance, bringing information to make choices, listening to the opinions of others, using their experience based on information in 3 areas:

Information about yourself, Society or environment, and knowledge or academic 3) selecting alternatives, to compare advantages and disadvantages, including limitations in the practice, analysis and data processing using your experience in choosing creative choices, finding a solution to the problem according to the 4 Noble Truth principle.

4) following the alternatives Plan, implement, and allocate resources in operating properly, defining a program of decision-making by specifying operating schedules, budgets, and people involved in the performance. 5) Evaluating and fixing deficiencies, following up, examining, analyzing and processing data in operations, considering the effectiveness of alternatives. The results of the assessment are used as information for improving options, Arrange meant for various performance assessments using group-based, all 5 processes integrate with the Four Noble Truths to solve problems at every step, to make decisions as complete as possible.

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Effect of Waste Plastic Oil on Engine Performance and Durability

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Abstract— Thailand has had the policies supporting the production and uses of renewable and alternative energies in order to reduce the imports of the fuels from other countries. Producing the fuels from plastic wastes can lower the pollution and energy problems in the country in order to ensure that the fuels can actually be the alternatives. The purpose of this research study is to compare the effects of using the diesel fuel from the plastic wastes on the single cylinder engines by comparing the performances and wears of the engines with the commercial diesel fuel and waste plastic oil. There were two tests: 1) the engine performance test and 2) the engine wear test. According to the results of the engine performance test, it was found that the waste plastic oil resulted in the torque and brake power lower than those of the commercial diesel fuel for about 3% at 2,200 revolutions per minute. However, the waste plastic oil had the lower fuel consumption rate than that of the commercial diesel fuel. As a result, the waste plastic oil had the specific fuel consumption that was lower than that of the commercial diesel fuel for about 2%. Regarding the engine wears, it was found that the waste plastic oil caused slightly more wears than the commercial diesel fuel. It was concluded that the waste plastic oil was an alternative energy that had the potentials of the commercial diesel fuel without modifying the engines.

Index Terms— *Waste Plastic Oil, Diesel Engine, Engine Performance, Wearing*

I. INTRODUCTION

Thailand had to mainly rely on importing energies from other country. It was found that 60 percent of the demands for commercial energies were initially from the imports. According to the data in 2019, it was found that the percentage of the imported crude oil was high (87 percent) by comparing it to that of the local crude oil. It also tended to rise because the volume of the petroleum production could not meet the demands [1].

The serious developments of the renewable and alternative energies would reduce relying and importing the fuels. Therefore, the government had policies promoting the renewable and alternative energies produced in the country. The energies include wind power, solar energy, water power, biomass, wastes, biogases and bio fuels. The goals were to lower the percentages of the renewable and alternative energies in the forms of electric power, heat and bio fuels of the final uses of energies to 30 percent by 2037 [2]. Hence, driving the uses of the renewable and alternative energies is very important.

Moreover, the rapidly economic expansion changed the consumption behaviors of people in the country. Consequently, the problems about wastes occurred in the country. In 2018, there were 27.93 tons of wastes or 76,529 tons per day [3]. Most methods for disposing the wastes were not correct according to academic principles. This led to the problems affecting the environments and health of people [4]. However, these wastes could be energy sources [5]. Thus, adding values to the wastes in order to produce renewable energies such as electric power, heat or fuels was an alternative that did not only solve the environmental problems, but it would also overcome the country's energy crisis [6].

Plastic wastes contain hydro carbon compounds similar to fuels. Accordingly, the wastes can be processed back to fuels by reducing the sizes of molecules in order to produce liquid fuels. This must be done through pyrolysis or thermal treatment [7] that decomposes substances with high molecular masses with heat in oxygen-free conditions. The temperatures are about 450–600 ℃ [8]. These lead to three types of products: solids, liquids and gases [9]. The liquids obtained pyrolysis have the properties similar to that of diesel fuel [10].

According to the previous studies, the properties of the oil produced from the plastic wastes were tested with the engine. It was found that the waste plastic oil had the heating value, cetane number, specific gravity, viscosity and flash point slightly higher than that of the diesel fuel. By testing the oil with the engine; the power during the highest loads and specific fuel consumption were higher than 5 –

8%. The releases of nitrogen oxide and carbon dioxide were similar. The properties of the waste plastic oil were similar to that of the diesel fuel [11]-[13]. Nonetheless, although this oil could be a commercially renewable fuel, the qualities were diversely dependent on various factors such as technologies, production systems and raw materials. Thus, it was necessary to have supporting data about performances and engine wears in order to efficiently use the waste plastic oil and to perfectly replace the commercial diesel fuel without affecting engines.

II. Research Objectives

The purpose of this research study is to compare the effects of using the diesel fuel from the plastic wastes on the single cylinder engines by comparing the performances and wears of the engines with the commercial diesel fuel (CDF) and waste plastic oil (WPO).

III. Research Methods

A. Fuels

The tested diesel fuel was commercial according to the standard of the Department of Energy Business [14]. By comparing it to the diesel fuel produced from 100% plastic wastes through pyrolysis from the waste plastic oil refinery of Suranaree University of Technology, the properties of most oil were consistent with the announcements of the department. This excepted the refinery values (Table I). The oil was classified as high speed diesel (HSD).

Table I The properties of the refined diesel oil compared to the properties of the diesel oil in the announcement of the Department of Energy Business

Fuel Properties	Test Method	WPO	Commercial Diesel Fuel		
			Limit	HSD	LSD
Density at 15°C (kg/m^3)	ASTM D 1298	0.8111	Min Max	0.81 0.87	- 0.92
Kinematic Viscosity at 40 °C (cSt)	ASTM D 445	3.103	Min Max	1.8 4.1	- 8
Cetane Number	ASTM D 613	60	Min	50	45
Cetane Index	ASTM D 976	67	Min	50	45
Flash Point (°C)	ASTM D 93	50.5	Min	52	52
Cloud Point (°C)	ASTM D 97	15	Min	10	16
Oxidation Stability (g/m^3)	ASTM D 2274	17.8	Max	25	-
Sulfur Content (% w/w)	ASTM D 2622	0	Max	0.005	1.5
Ash Content (% w/w)	ASTM D 482	0.005	Max	0.01	0.02
90% (V/V) Distillation (°C)	ASTM D 86	371.9	Max	357	-
Polyaromatic Hydrocarbons (% w/w)	ASTM D 2425	3.1	Max	11	-
Water Content (% w/w)	ASTM D 2709	0	Max	0.05	0.3
Lubricity Corrected (μm)	CEC F-06-96	350	Max	460	-

B. Experimental Setup

The test diesel engine was a new single cylinder engine of HONMAR. Its model was DH850E. It was ready to use. The diesel engine performance and wear test kit was of ESSOM. Its model was MT502 HD (Fig. 1). The technical data of the diesel engine are shown in Table II. The test kit and measuring tools for the engine performances and durability are presented in Fig. 2.

Fig. 1 Experimental setup for engine testing

Table II Test engine specifications

Specifications	Honmar Model DH850E
Horse Power (hp)	6.7 at 3,600 rpm
Engine Type	Single-cylinder, 4-stroke
Cooling System	Air Cooled Type
Combustion System	Direct Injection
Cylinder Bore x Stroke (mm x mm)	78x62
Cylinder Volume (cm^3)	296
Engine Start System	Recoil
Fuel Capacity (liter)	3.5
Fuel Type	Diesel
Engine Oil Capacity (liter)	1.1
Engine Dimension (mm)	427x383x450
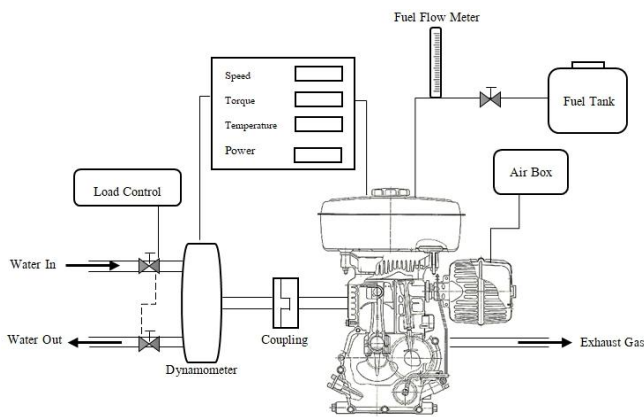
Fig. 2 Schematic diagram of the experimental installation

C. Standards and Test

The test was divided into two parts. The first part was the engine performance test according to the ISO 1550:2016 Internal Combustion Engine–Determination and Method for the Measurement of Engine Power–General Requirements, which was used as the reference for specifying the load of the engine during the engine durability test. The performances consisted of 1) engine break power, 2) engine break torque and 3) specific fuel consumption. The test started from warming the engine at 1,000 revolutions per minute (rpm) until the operating engine temperature was stable at 70 ºC, and the initial speed of the engine was set to 2,700 rpm. Then, the engine load was increased with the dynamometer until the speed of the engine was decreased. The value was recorded every 100 rpm until the speed of the engine was reduced to 1,700 rpm. Then, the test was over. The data were presented and analyzed in the form of the engine performance graph according to the international standards. The second part of the test was the engine durability test referring to the 200-hr Screening Test for Alternative Fuels or EMA 200-hr Test [16], which was the durability test standard for engines using alternative or renewable energies. In the test, the load was specified as the duty cycle as shown in Table III. The test was repeated for 18 hours (six cycles) and stopped for six hours in order to ensure that the temperature of the engine was equal to the ambient temperature. The test was repeated until it was tested for 200 hours. The durability of the engine was evaluated by measuring the properties of the engine oil every 50 hours. The examined properties including viscosity, density, alkalinity and contaminated water quantity in order to study the effects of the waste plastic oil on the lubrication system of the engine and to measure the wears of other components of the engine. The metal and non-metal contaminants such as iron (Fe), aluminium (Al), copper (Cu) and chromium (Cr) were identified in order to find the wears of the other components after using the waste plastic oil because the

different components were made of the different materials. Therefore, the contaminants found in the engine oil could be used as the guidelines for identifying the wears of the components.

Table III The cycle of the EMA 200-hours durability test

Cycle Step	Engine Speed (rpm)	Torque	Power	Time (min)
1	Rated	–	Rated	60
2	85%	Maximum	95%	60
3	90%	28%	25%	30
4	Idle	0	0	30

IV. RESULTS

A. Performance Test

According to the results of the engine break torque test, it was found that the torque of the WPO was slightly lower that of the CDF (Fig. 3). Especially for the speeds of 2,000 - 2,600 rpm that were the normal speeds of the engine, the highest torque of the engine was 2,200 rpm. The WPO had the highest torque of 11.0 N-m, while that of the CDF was 12.2 N-m. That is, the torque of the WPO was lower than that of the CDF for about 3%.

By calculating the engine brake power, it was found that the brake power tended to increase according to the speed. Additionally, both types of the diesel fuel had the similar results (Fig. 4). The highest power of the engine was at the speed of 2,500 rpm. The CDF had the highest power of 2.93 kW, while the CDF had the highest power of 2.83 kW. However, the power from the WPO was averagely lower than that of the CDF for 7% at the speeds of 1,700 - 2,300 rpm.

Regarding the specific fuel consumption (SFC), it was found that the engine using the WPO had the lowest average SFC of 0.44 g/kW-hr. Similarly, the CDF had the average SFC of 0.41 g/kW-hr. The average SFCs were calculated at the speeds of 2,000 - 2,600 rpm as shown in Fig. 5.

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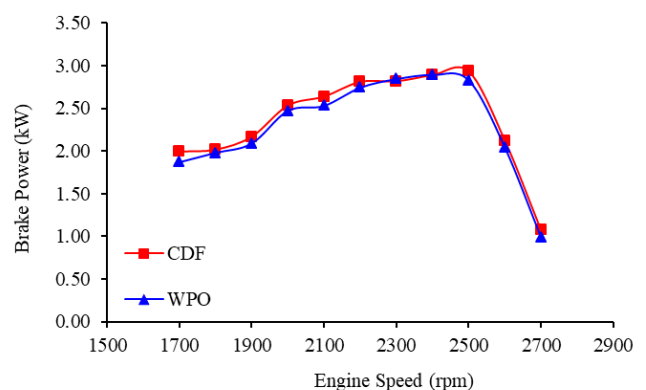
Fig. 3 The engine speed per brake power of the CDF and WPO
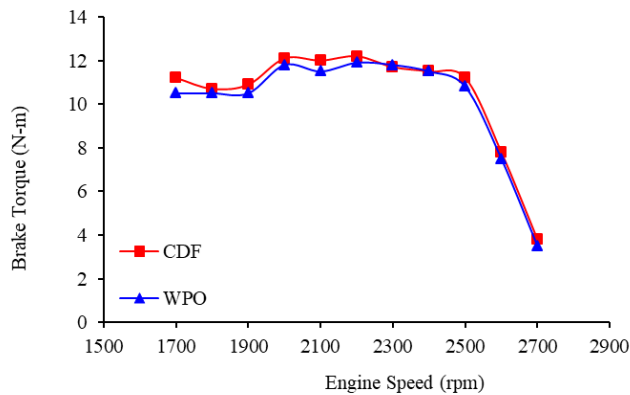
Fig. 4 The engine speed per brake torque of the CDF and WPO
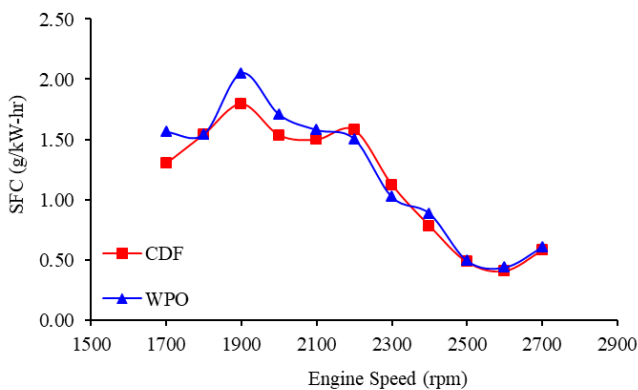
Fig. 5 The engine speed per specific fuel consumption of the CDF and WPO

B. Durability Test

The properties of the engine oil during the durability test of the CDF and the WPO were shown in Table IV and Table V, respectively. The properties of the engine oil were changed according to the time. The viscosity and density tended to increase, while the alkalinity was decreased. By analyzing the metal and non-metal contaminants; it was found that the amounts of Fe, Pb, Cr, Cu, Al and Si increased during the test.

Table IV The properties of the engine oil during the durability test of the commercial diesel fuel

Properties	Operating Hours (hr)			
	50	100	150	200
Viscosity at 100 ^{o}C (cSt)	15.00	16.20	17.40	17.70
Density at 100 ^{o}C (kg/m^3)	851.60	853.00	854.50	856.00
Alkalinity (gKOH/g)	10.80	10.20	10.50	9.80
Fe (ppm)	22.33	23.10	25.33	25.68
Pb (ppm)	1.44	2.64	9.12	15.84
Cr (ppm)	0.90	1.60	2.60	3.90
Cu (ppm)	0.93	1.74	3.45	4.20
Al (ppm)	4.25	5.60	8.25	14.90
Si (ppm)	4.65	4.86	6.38	7.53

Table V The properties of the engine oil during the durability test of the waste plastic oil

Properties	Operating Hours (hr)			
	50	100	150	200
Viscosity at 100 ^{o}C (cSt)	15.10	15.71	16.32	16.91
Density at 100 ^{o}C (kg/m^3)	852.50	853.00	853.50	854.00
Alkalinity (gKOH/g)	11.00	10.20	9.50	8.50
Fe (ppm)	23.22	24.07	26.50	26.95
Pb (ppm)	4.32	6.00	7.56	10.44
Cr (ppm)	0.85	1.60	2.65	3.45
Cu (ppm)	0.93	1.50	2.52	3.81
Al (ppm)	3.65	5.50	6.60	7.55
Si (ppm)	5.80	6.13	6.97	8.86

V. DISCUSSIONS

In this study, the performance and durability of the single cylinder diesel engine using the commercial diesel fuel and the waste plastic oil were identified. By testing the performance of the engine at the different speeds, it was found that the graphs of the brake torque, brake power and specific fuel consumption changed in the same directions. The torque and brake power of the engine using the waste plastic oil were lower than that of the commercial diesel fuel. Nevertheless, the specific fuel consumptions of the waste plastic oil and the commercial diesel fuel were very similar. By testing the durability of the engine, it was found that the viscosity and density were increased. The alkalinity was decreased. The metal and non-metal contaminants were increased during the test. The engine consisted of many components including static components and dynamic components. Generally the dynamic components were made of metals that had frictions on the static components. The mentioned movements resulted in wears. Hence, the engine must have the lubricant that did not only

lubricate the components, but it also cleaned the metal components. Normally, lubricants have reactions with oxygen in the air. Then, it results in acidic substances and gum. These reactions occur at high temperatures that degrade the lubricants with increased acidity and viscosity. If the acidity of lubricants is increased, then the metal components of machines were eroded [17]. It is found that Fe has the highest amount since Fe is a main component of the parts of engines. In overall, the commercial diesel oil had the amount of Fe slightly lower than that of the other oil. Possibly, it was because the commercial diesel fuel had additives such as biodiesel in order to improve the lubrication. Thus, the test results could confirm that the waste plastic oil had the potentials for being used in engines and its qualities could be improved and equivalent to that of the commercial diesel fuel.

VI. RECOMMENDATIONS

A. Recommendations for Practices

Since the properties and test results of the waste plastic oil were similar to that of the commercial diesel fuel, we can use the waste plastic oil without modifying engines. For modified engines with adjusted fuel injection angles and other modifications, the waste plastic oil may improve the performance of the engines and completely replace the commercial diesel fuel.

B. Recommendations for Further Research

1. Further studies should be conducted, or the qualities of the oil should be improved in order to be equivalent to that of the commercial diesel fuel.

2. Further studies about the pollution caused by engines should be conducted.

3. Field studies about the wears of engines should be conducted.

CONCLUSION

This study presented the effects of the waste plastic oil on the diesel engine. By comparing the performance and wears of the engine using the waste plastic oil and the commercial diesel fuel, it was found that the performance was slightly affected since the brake power was decreased for about 6%. The specific fuel consumptions of the waste plastic oil and the commercial diesel fuel were very similar. Therefore, the break thermal efficiency of the engine using the waste plastic oil was lower than that of the commercial diesel fuel for only 1.6 – 3.0%. For the wears of the engine, it was found that the waste plastic oil insignificantly resulted in more wears than the commercial diesel fuel.

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Innovation of Community Potential Development in Khlong Luang district, Pathum Thani province.

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Abstract— This research had the following purposes :1) to study the participatory community potential; 2) to search for innovation of community potential development; 3) to study the impact of innovation on community in Khlong Luang district, Pathum Thani province. The data was collected by in-depth interviews, group discussion and SWOT analysis from key informants, such as the community leader, the chairman and the members of career group and community-based tourism group. The result showed that the community leader was a professional agriculturist, a positive and systematic person as well as having a sweeping vision. Moreover, the community worked together to utilize the resources and solve the problems. The agriculturists in this research area also took the Philosophy of Sufficiency Economy and the new theory of agriculture to develop the community and showed the way of living with community based on"Home, Temple, School". There was a sufficiency economy learning center with the government sponsorship. The innovations for community potential development were product and service innovations, marketing innovation and process innovation including the impact of innovation on community which was teamworking. Community networks were established and the income of the community was increased.

Index Terms— Innovation, Community Potential Development, Participation

I. INTRODUCTION

Thailand enhances competitiveness to develop the country's potential by "Further Development of the Past" looking back at its economic roots, identity, culture tradition ,the way of life and the highlights of various natural resources as well as the comparative advantage of the country in other areas, applied in combination with technology and innovation in accordance with the context of the modern world economy and society. "Modernization" to pave the way for the future through the development of the country's infrastructure in various dimensions, including transportation networks, the establishment of scientific basis, technology and digital to facilitate the development of industries and services in the future. Also, "Creating new value in the future" enhancing entrepreneurial potential and developing a new generation including adjusting the business model to correspond to the market demand [1], [2] strengthening business competitiveness and economic foundations to promote the learning process and participation of the people as well as build capacity and strength to generate more careers and income for the community. It is necessary to conduct the spatial development for the community to access professional development including creating a community income and promoting community tourism to reduce the inequality of a society that focuses on generating income and economic strength as well as upgrading the product including developing a variety of marketing channels to increase the income of the community.[3]

The development of the country puts an emphasis on innovation by changing products or services from ideas, methods and knowledge to make a difference, innovate new processes, or new products that creates value-added for economic benefits. It is the key to the Thailand 4.0 model to increase competitiveness to achieve the goals according to the Twenty-Year National Strategic Plan. The beginning of innovation development is in the private sector; however, there are many successful public innovations in overseas government sector. This is the result of cooperation between all departments, as well as in the business sector with an opening innovation strategy, allowing individuals from various agencies to help develop innovation. This will result in a leap development in the short time. [4]

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The cooperation process is based on shared values that is not only the profit of the private sector. [5], It is value-driven innovation. It is the value generated by sacrificing their resources to create benefits, particularly in solving the problems of the world that is more complex today. This is an important expectation of "Social innovation" that will bring benefits and happiness in accordance with the meaning of the access level of Sufficiency Economy which could be greatly applied for living. [6]

The development of community potential is created by the community awareness of participation and building problem solving potential in community members that can rely on themselves and lead to sustainability. [7] In addition, in Pathum Thani province, there are policies and plans that strengthen the production process as well as the agricultural and food process to be completely safe. There are also some of tourist attraction developments and tourism and marketing activities for career opportunities and incomes to the local people in participatory method. In Rajabhat Valaya Alongkorn university under the royal patronage, the researches and innovations are applied to tackle local problems with the means of bringing innovations resulting from the use of knowledge in various disciplines to be integrated to create something new to happen for the benefit of society and economy. It can increase the value of new developments through searching, implementing and learning to create a strong basic knowledge and could be used to develop resources, wisdom, agricultural products to be effective and added value.The result of the use of innovation in the community creates good ideas of the community and also the application of local wisdom which are the management of community capitals such as resources, productivity, and knowledge. [8]

Khlong Luang District is an area where Valaya Loong Rajabhat University under the royal patronage provides academic service to the community.It is located nearby Bangkok and it is convenient for transportation. With continuous development in the industry and agricultural sector, there are important agricultural products such as Pathumthani fragrant rice, mushrooms, mango, short life-cycle crops, medicinal plants, farming, gardening and animal husbandry in addition to the development of the environment and the management of natural resources to become a livable and sustainable community. From the above information, it can contribute to further the agriculture part to study and research on "**Innovation of Community Potential Development**", which recognizes the importance of education in participatory community potential and also the searching innovation in Community Potential Development and the study the impact of innovation on the community to reduce social inequality with the distribution of income that causes the community

strength as well as having learning and participation in the sustainable development of the community.

II. RESEARCH OBJECTIVES

The objectives of this research article were 1) to study the participatory community potential in Khlong Luang area, Pathumthani Province 2) to search for innovation in community potential development in Khlong Luang District ,Pathum Thani Province.,and3to study the impact of innovation on communities in Klong Luang District, Pathumthani Province

III. RESEARCH METHODS

Scope of research

"Innovation of Community Potential Development", is a qualitative research. The target group was the main information providers who were the group of people selected from the right livelihood group, community enterprise and the OTOP Nawatwithi tourism community in the area of Khlong Third Sub-district, Khlong Fifth Sub-district, Khlong Sixth Sub-district, Khlong Luang District including the chairman of the board, members and related persons. The data was collected by in-depth interviews, group discussion and SWOT analysis on the strengths, weaknesses, opportunities and obstacles of the community arising from factors within the community which was caused by factors within the community and outside the community. Then searching for innovation of community potential development in Khlong Luang District Pathumthani Province was a new concept, and methods of operations and services which were the result of the creation, enhancement, extension or application of knowledge as a tool for creating new things that occurred for social and economic benefits, such as innovation, products and services. Process innovation and marketing innovation [9] [10] [11] [12] and to study the impact of innovation on communities in Klong Luang District. Pathumthani province, including economy, society and environment.

A. Research Design

The researcher scope (a) **Scope of content**, innovation, community potential development, participation and social changes. (b) **The area was the community,** Klong Luang District. Pathumthani Province. (c) Population Scope, Population:The research team collected population data divided into 3 groups :First group: people living in Klong Luang District. Pathumthani Province,Second group : group of community leaders, administrators of local

administrative organizations and government agencies involved. Third groups, occupational groups, community tourism groups (d) **Sample group**, First group: group of people living in Klong Luang District Pathum Thani Province around 12 people. Second group: of community leaders, administrators of local administrative organizations and government agencies involved around 12 people.Third groups: community tourism groups around 12 people.(e) **Sampling method** using proportional sample size. by systematic sampling, according to the location of Klong Luang district Pathumthani Province, namely Khlong third Sub-district, Khlong FifthSub-district, Khlong Sixth district.[13] (f)**Instrument** included in-depth interviews. Non-participatory observation, specific groups discussion, SWOT analysis as well as organizing a community forum on participatory community potential, searching for innovation in community capacity development and the impact of innovation on the community. (g) **The qualitative data analysis** included the content analysis, the triangulation method from informants relating to participatory community potential, searching innovation in community capacity development and the impact of innovation on the community

.

B. Research Process

Research process of this research has developed into 4 steps were shown in Fig. 1.

The study of Community Potential	The study of innovation for Community Potential Development	The impact of innovation on community
1.SWOT Analysis 2.Contextual survey	1. Interviewing 2 Specific group discussion.	1. Civil Society Forum 2.Non-participatory observation

Fig.1 Research process for Innovation of Community Potential Development in Khlong Luang district, Pathum Thani province.

The researchers studied the potential of communities in Khlong Third Sub-district, Khlong Fifth Sub-district, Khlong Sixth Sub-District, Khlong Luang District Pathumthani Province by surveying the community and SWOT analysis, then studying innovation and community potential development from interviews, specific group conversations and non-participatory observation together with studying the impact of innovation on the community as well as creating a community forum with non-participation observations

IV. RESULTS

Innovative research result for the development of participatory community potential in Khlong Third Sub-district, Klong Fifth Sub-district and Klong Sixth Sub-district, Klong Luang District Pathumthani Province consists of community potential, community development innovation and the impact of innovation on the community as follows.1) Community potential is the realization of value and the preservation of art, culture and wisdom which is unique to the local area [14] including community leaders, community resources and community involvement. The results of the study are presented in Table 1.

Table 1: Community potential

	Community potential
1.Community potential	Community leaders include village chiefs : Pooyai Rungnapa Kerdtham, Kamnan Srinuan Thipaphongphakaphan and Mr. Adul Wichianchai has knowledge of organic agriculture to support careers and provide extra income of the people in needs such as reed weaving, processing agricultural products and helping people. In addition, Pooyai Rungnapha has positive thoughts and minds. Kamnan is a positive thinker, systematic thinker, had broad vision. "People are the foundation for living and developing into the future with stability and balance according to the philosophy of sufficiency economy or "**following in the father's footsteps**" and also Kamnan has appropriate personality, self-determination, confidence, polite speech, good mood, calm and be a giver
2.Community resources	Community resources: the communities have important resources, namely water, soil that people in the community can be used together as well as having resources created by the community and made from agriculture and local wisdom about the cultivation of rice, organic vegetables, bamboo, kim sung, sugarcane , cane juice, pandan juice, dried bananas, Thong Muan product , woven reed mat , bike and turbine baler ,dried mango paste, chili sauce and rice

	cracker in various flavors.
3. Community involvement	Community involvement: in correspondence to the reason that 3) Community involvement with government officials works well together with the involvement between the government officials and community meets the needs of the community in order to organize tourism activities and create careers for the people.

SWOT analysis: Overview of communities in Klong Luang District, community potential is the capability of the community to jointly implement activities by bringing resources such as agricultural products local wisdom etc. to benefit the community and generate income for self-reliance and strength which people in the community have to realize and also preserve for the art, culture and wisdom as a local identity[28] consisting of community leaders, community resources and community participation as follows, a) In khlong third sub-district, community leader is Pooyai Rungnapha Kerdtham, village chief who is well-versed in the professions of the people to help the people in trouble and supports people to earn extra money by promoting careers such as weaving reed mats, processing agricultural products such as dried bananas. sugarcane juice, pandan juice, eclair snack, etc. Pooyai Runnapa is a person with positive thoughts and minds. "People are the foundation of living and are developed into a stable and balanced future according to the sufficiency economy philosophy". Also, she has appropriate personality such as self-determination, confidence, polite speech, good mood, calmness and being a giver. b) The community has important resources, water, soil, which can be used by people in the community. In addition, there are resources created by the community and produced from agricultural production and local wisdom; for instance, rice, organic vegetables, Kimsung bamboo, Cochinchin gourd, sugar cane, cane juice, pandan juice, dried banana, Tong Muan snack, woven reed mat, bike and turbine baler, etc. Government officials are the intermediary between the community and government agencies to meet the needs of the community and the entrepreneurs of the tourism community bring products and services to offer tourists and sell them together with wearing Thai clothing. Pooyai Rungnapa supports the additional occupations with the knowledge of sufficiency economy philosophy and conservation of local wisdom. There are activities relating to sufficiency economy philosophy and local wisdom as well as the maintenance and improvement of tourist attractions to attract more tourists to visit the Klong sixth sub-district community. Regarding to the planning to make

a decision for the operations, there are regular meetings which are held normally about organizing activity and travel services. The villagers have embraced the philosophy of sufficiency economy and the new theory of agriculture with the livings with harmony. The majority of people has careers in farming and trading with simple lifestyles. The community has received academic sponsorship from the government sector and educational institutions to promote and support the economy, utilities and public health. The government encourages the people to live in a modest way of livings according to The King Rama IX, as well as exchange social and technological learnings with government agencies. In khlong fifth sub-district, Kamnan Srinual Tipaphongphakaphan has knowledge about the occupations of the people. She helps the people in needs and supports the raising of special income of the people as well as promotes a career in organic farming and processing agricultural products. Regarding to thoughts and minds: Kamnan Srinuan is a positive thinker, systematic thinker, has broad vision, "People are the foundation for living and developing into the future with stability and balance according to the philosophy of sufficiency economy. She also has the right personality, such as self-determination, confidence, patience, polite speech, and being a giver. The community has important resources, namely water, soil that people in the community can use together. In addition, there are community-generated resources and made from agriculture and local wisdom, such as organic rice, sugar cane, sugar cane, crispy noodles, curry paste, dried banana, Thong Muan product, etc.

Government officials are intermediary to the needs of the community and to meet the needs of the community. The entrepreneurs of the tourism community bring products and services to offer tourists and sell them together with wearing Thai clothing. Kamnan Sri Nuan supports the occupations for the villagers as well as the knowledge of sufficiency economy philosophy and conservation of local wisdom. There are activities relating to sufficiency economy philosophy and local wisdom as well as the maintenance and improvement of tourist attractions to attract more tourists to visit the klong sixth sub-district community.

The villagers in the community who have a farming career have embraced the philosophy of sufficiency economy and new atheist agriculture. In addition, the community has been promoted academically, economically, utilities and public health. The sale of community products is distributed through individuals, government agencies, social media. The government encourages the people to live in a modest way of livings according to The King Rama IX, as well as exchange social and technological learnings with government agencies.

In khlong sixth sub-district, there is a leader that is recognized by neighbors named Mr. Adul Vichienchai who has wide knowledge about the organic farming. He helps the people in trouble and supports the neighbors to earn some extra money and promote careers. Regarding to thoughts and minds: he has a systematic mindset and wide vision "Following in the footsteps of the father". The community has important resources; for instance, water and soil that people in the community can share their benefits. In addition, there are resources created by the community and produced by agriculture and local wisdom, such as rice, organic vegetables, dried bananas, dried mango paste, rice crackers and mushrooms in variety of flavors etc. Government officials are intermediary to the needs of the community and to meet the needs of the community. The entrepreneurs of the tourism community bring products and services to offer tourists and sell them together with wearing Thai clothing. Mr. Adul supports the occupations for the villagers as well as the knowledge of sufficiency economy philosophy and conservation of local wisdom. There are activities relating to sufficiency economy philosophy and local wisdom as well as the maintenance and improvement of tourist attractions to attract more tourists to visit the klong sixth sub-district community by planning and making a decision for tourism.

The villagers who have farming careers, adopting a philosophy of sufficiency economy and new theory of agriculture. The community shows the way of living with community based on "Home, Temple, School". The community lives in harmony with others and has a learning resource for the sufficiency economy. The government sectors and educational institutions promote and support the community development. The community products are distributed to individuals, government agencies by social media, smart framer networks, young smart framers and Khok Nong Na model. The community shows the importance to create "Well-Being"

2. **Innovation of the development of community potential**

Innovation is a new concept, method, new method of operation and the services is the result of the creation, enhancement, extension or application of knowledge as a tool for creating new things that occur for social and economic benefits, such as, products and services innovations, process innovation and marketing innovation [15] [16] [17] [18] are as follows.

Table 3 shows the innovation of development of community potential in Klong Luang District, Pathum Thani Province

Innovations	Results
1.Products and Services innovations	- Creating value to increase the productivity of the community includes organic chicken eggs for making éclair dessert, community branding, sugar cane juice, pandan juice, rounded orange juice drink, soil for planting with Loong-Pooyai formula, fish- extracted organic fertilizer with Loong-Pooyai formula, herbal crispy noodle, various chili pastes, various shaped bags. -The use of wisdom to create community products is described as follows: the reeds for weaving the colored reed mats from the roots, core, the bark, the flowers and the trunks of various kinds of trees for the creation of the "dried lotus" lotus. -Innovative technologies include bike water pumping for agriculture, essential oil extracted from orange peel.
2.Process innovation	- The village headman and the people collaborate to develop the Sufficiency Economy Philosophy learning center. - The process of weaving reed mats from reed planting, reed cutting, reed slitting in strips and sun drying. When dried, it is used for natural dyeing for weaving in various mat patterns - People jointly determine how to maintain natural resources and the environment in the community that tourists can experience the smell of nature. The air is free from pollution and the leaves that photosynthesize release oxygen "It allows the tourists to get fresh air" - Demonstration process of making Mee Krob (crispy noodle) for those who come to study and visit - The process making Thong Muan Krob, making dried banana in solar oven,extracting essential oils from the orange peel,producing spherical orange juice,producing herbal drinks and growing salad vegetables on the table. - The development of Khok Nong Na Model
3.Marketing innovation	-The market orientation for healthcare customers -The variety of products such as Thai desserts, beverages, organic vegetables, handicrafts -The upgrading of community products to be certified and stylish for packaging including having a brand that indicates the community identity together with increasing online distribution channels

3. The impact of innovation on communities

The impact of innovation on community in the economic aspect is to improve operational efficiency. It reduces production costs, and creates value and prominence in community products. The sale of community products using information technology which is a new and fast service is competitive to the business community and survive under the current economic challenges. This enables the community business to achieve market success because it meets the needs of customers continuously and adjust customer's attitude for the product quality awareness as well as brand recognition. The viral marketing is introduced to others and new customers and there are new customers continually. Regarding to the social aspect, there is a good relationship between the community and the visitors. The good leaders who have a broad vision, positive thinking, systematic thinking create social equality, resulting in the higher exchange of people in the community. People can live moderately according to the sufficiency economy philosophy, "Following in the footsteps of the father", and a community network is developed as well as strengthening agricultural careers, creating productive values and community resources along with upgrading the service level of the community to be more professional. Regarding the environmental aspect, the people have ownership and more cares for places. There is a system to eliminate municipal waste and reduce environmental degradation such as soil, water and trees.

V. DISCUSSIONS

Innovation for the development of participatory community potential development of community engagement potential in Khlong Third sub-district, Klong Fifth sub-district and Khlong Sixth sub-district. Khlong Luang District, Pathum Thani province consists of community potential, innovation for community potential development and the impact of innovation on the community as follows:

1.Community Potential in Khlong Third sub-district, Klong Fifth sub-district and Khlong Sixth sub-district. It was found that community leaders, including Pooyai Rungnapa Kerdtham, Kamnan Srinuan Thipaphongphakaphan and Mr. Adul Wichianchai were knowledgeable persons in organic agriculture and sufficiency economy philosophy to provide professional supports to the people in community. They also had good minds, systematic thinkings, far-reaching visions. The important community resources were water, soil that people

in the community could share and maintain, while cooperating with government officials to develop communities to organize tourism activities and to create careers for the people.

The community had its strengths which could be described that the villagers of the agricultural profession adopted a sufficiency economy philosophy and a new theory of agriculture, which was a learning resource for the sufficiency economy philosophy. The community lived with harmony and showed the way of living with community based on "Home, Temple, School". The community access was convenient and safe, supported by the government sectors, and educational institutions to promote and support the economy, utilities and public health. Those encouraged people to live their ways of lives sufficiently according to the initiative of King Rama IX. There were more exchanges for social and technological learnings with government agencies. There were Smart framer and Young smart framer networks which were consistent with the research results of [19] found that factors that promote the strength of the community in the municipality of Pak Kret Nonthaburi province were as follows: 1) Dedicated community leaders and good human relations 2) Community members accept the role of community directors 3) Communities have high self-reliance potentials 4) Communities and municipalities have good cooperation.

Weaknesses were found that some families were poor. Regarding the marketing management, community products were less modern and insufficient identities, low prices and inadequate amenities to meet the needs of tourists along with obstacles to the lives of the people. There was a high cost of living, high debt, low agricultural productivity, High cost of agriculture. There was also a high market competition. In addition, the way of lives of the people today was not keeping up with the changes in technology and society. In line with the research results of [20], it was found that border communities, permanent border crossing point, Chong Phu Du, Ban Khok District, Uttaradit Province. There were guidelines for solving problems of government agencies and local people by linking human resources with the economy.

2. Innovations for community potential development in Khlong Fifth sub-district and Khlong Sixth sub-district, Klong Luang District, Pathumthani province found that

1) Innovative products and services were as follows (1) Creating value-added products of the community by processing such as organic chicken eggs, eclair dessert, community branding, sugar cane juice, pandan juice, rounded orange juice drink, soil for planting with Loong-Pooyai recipe , fish-extracted organic fertilizer with

Loong-Pooyai formula , herbal crispy noodle , various chili pastes , various shaped bags, Thong Muan product, solar-dried banana, Bhu Than mushroom cube, Bhu Than mushroom cracker. Chiffon Bhu Than mushroom. (2) Bringing wisdom to create community products such as papyrus, weaving colored-reed mat from the roots, bark, fruit, flowers and trunks of various types of trees, including creating "dried lotus" work. (3) Renewable energy is a bicycle pumping water for agriculture and (4) Science is the extraction of essential oils from the orange peel and making spherical orange in correspondence with the concept of [21] discussed the products that reflected the efficiency of the organization's new product development.

2) Process innovation ; for instance, the village chiefs and the people cooperated to develop the Sufficiency Economy Philosophy Learning Center as well as maintaining natural resources and the environment in the community that would benefits for the tourists who could experience the smell of nature that free from pollution and see the leaves photosynthesize and release oxygen for "Allowing tourists to get fresh air". The process of weaving the reed mat , process of making crispy noodles, process of making crispy Thong Muan products , process of making rounded- orange juice , process of the production of herbal drinks and growing salad vegetables on the table, the development of Khok Nong Na model in accordance with the concept of [2] discussed the manufacturing process that was different from the old method in correspondence with the research of [23] found that at present, the community enterprise groups have created the most innovative wisdom which supports the sufficiency economy in the aspect of process innovation.

3) Marketing innovations include (1) targeting specific markets for health care customers. (2) Product diversity, such as Thai desserts, beverages, organic vegetables, handicrafts and (3) Upgrading the community products to be certified and stylish for packaging together with having a brand that indicates the community identity as well as increasing online distribution channels in correspondence with the research by [24] it was found that marketing innovations that affect buying behavior and brand loyalty are product diversity and customer orientation to raise the level of herbal products to be more interesting and known as well as increasing the competitiveness in a sustainable way.

3. The impact of innovation on the community 1) economic aspect: the community enhanced operational efficiency which could reduce production costs; create value and prominence in community products; sell community products using information technology as a new, fast

service. The community was capable of competing with community businesses and survives under the current economic challenges. This enabled the community business to achieve market success because it met the needs of customers continuously and adjusted the customer's attitude for the product's quality awareness as well as brand recognition. The viral marketing was introduced to others and new customers and there were new customers continually in accordance with the research of [25] found that the creation of innovation to enhance the economy for agriculture, community enterprises and small to medium-sized enterprises in the provincial level. 2) Social aspect: there is a good relationship between the community and the visitors. The good leaders also had a broad vision, positive thinking, systematic thinking ,creating the social equality that would lead to higher exchanges of people in the community together with following the sufficiency economy philosophy, "following in the footsteps of the father", and the community network was established to develop and strengthen farmers to create value for profit and community resources, while improving the service of the community to be more professionally in accordance with the research of [26] that the community of Ban Si Sanphet , there was a variety of traditions, cultures and nationalities. It had a long history of archaeology and the recognition of cultural value and tradition to the youth. 3) Environmental aspect : people have more ownership and more cares for places. In addition , there was the system of organizing community waste and reducing environmental damage such as soil, water and trees in accordance with the research of [27] found that the community of Hua Ngam sub-district, Phan District, Chiang Rai province, initiated the "People's charter for people in Hua Ngum", which is a productivity of ideas , process and the cooperation from multiple parties , clearly expressed and translated into concrete action It the model driven development of the rules of the community including the maintenance of natural resources and the environment in the community.

VI. RECOMMENDATIONS

A. Suggestions for applying the research results

Research results found that the communities had weaknesses as follows: 1) Economic aspect: some families were poor and the marketing management with the community products was less modern and lacked identity, low prices and inadequate amenities to meet tourist needs. There were a cost of living, high debt, agricultural productivity, low prices, high cost of agriculture. There was high market competition. Therefore, agriculture development should be developed to create values by applying innovations in the agricultural sector which could be the country's goal ; for instance, the agricultural identity,

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agricultural safety, bio agriculture, processed agriculture and smart agriculture to increase productive efficiency both in terms of quantity , quality and product variety including raising the income level , reducing expenses and risk factors in farming for farmer as well as maintaining biodiversity and local wisdom 2) Social aspect: It was found that the lifestyle of the people at present does not keep up with the changes in technology and society. Therefore, the community should focus on technological innovation to develop new innovations all the time

B. Recommendations for Further Research

1 Should study the development of community the development of community enterprise groups.

2. Should study the development of community the development of community enterprise groups

CONCLUSION

In conclusion, Innovation for the development of participatory community potential in Khlong Third sub-district, Khlong Fifth sub district, and Khlong Sixth Sub-district, Khlong Luang District Pathumthani Province studied the potentials of communities in Khlong Third sub-District, Khlong Fifth sub-District and Khlong Sixth sub-district, Khlong Luang District Pathumthani province found that the community leaders were knowledgeable and capable to transfer knowledge on organic agriculture and the sufficiency economy philosophy. They provided career supports for people with good minds, systematic thoughts, wide visions. Regarding the important community resources, there were water, soil that people in the community could use together and maintain. In addition, the people cooperated with government officials to develop the community in organizing tourism activities as well as creating a career for the people.

The community had its strengths; for instance, the villagers whose occupations were agriculturists followed the sufficiency economy philosophy and the new theory of agriculture, which is a learning center for the sufficiency economy philosophy. The community also showed harmony and the a simple way of lives that relied on the community in   the style of "**Temple, Community and School** " On the other hand, there were some weaknesses ; for instance , some families were poor and the marketing management in community products was less modern and lacked their own identity, low prices and inadequate amenities to meet the needs of tourists along with the obstacles to the lives of the people. There were a high cost of living, high debt, low agricultural productivity and high cost of agriculture. There was high market competition. Also, the way of lives of the people today is not keeping up with the changes in technology and society.

Innovation of community potential development in Klong fifthsub-district and Khlong Sixth sub-district , Khlong Luang found that 1) Product and service innovation were to create value to increase community productivity by processing the local wisdom to build community products , using the renewable energy and scientific knowledge.2) Process innovations include leaders and people working together to develop sufficiency economy philosophy learning centers, the preservation of natural resources and the environment in the community, weaving reeds procedure, crispy noodle procedure   crispy Thong Muan procedure, the production of rounded orange juice, the production of herbal drinks, and the planting of salad vegetables on the table and the development of the Khok Nong Na model.and3) Market innovation was aimed to marketize only for healthcare customers. There was a wide variety of products including the upgrading of the community products to meet standards.

The impact of innovation on the community was as follows 1) Economic community enhanced the operational efficiency. There was a reduction in production costs and also creating values and prominence of community products together with the distribution of community products using information technology and competitive community businesses.2) Social aspect: there was a good relationship between the community and the visitors. The leaders had a broad vision, positive thinking, systematic thinking, creating social equality that would lead to higher exchanges of people in the community. The community lived modestly according to the sufficiency economy philosophy. "Following in the footsteps of the father" and built a community network while enhancing the service of the community with greater professionalism. and 3) Environmental aspect: people had more ownership and cares for places. There were community waste management system and reducing environmental destruction such as soil, water and trees.

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Development of a Routes Guide Innovation for Historical, Cultural and Natural Resources U-thong District, Suphanburi Province

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Abstract – The purpose of this research has develo a routes guide innovation for historical, cultural and natural resources U-thong district, Suphanburi Province. This research used quantitative research, and the research tools were questionnaires. Quantitative research had 2 steps. 1) Checked the validity of innovation a routes guide for historical, cultural and natural resources U-thong district, Suphanburi Province by the expects 9 key informants. Data were selected by using purposive sampling. 2) Checked complacency of innovation a routes guide by tourists visited tourist attractions 385 peoples. Used data selection method by multistage random sampling. Data was analyzed by mean and standard deviation. Results indicated that 1) the experts have had the appropriateness of content has been most appropriate at the highest level especially contents in the book have been easy to understand with the most suitable level. The appropriateness of photo arrangement appropriateness has been the least because some picture has been blurry. 2) The overall for complacency of innovation a routes guide was high level ($\bar{x}$ = 4.29, S.D. = 0.53). The highest complacency was benefits and values was at high level ($\bar{x}$= 4.41, S.D. = 0.47). The lowest complacency was Language and it was at high level ($\bar{x}$ = 4.23, S.D. = 0.59). Suggestion of this study were 1) there should be other innovations, and to strengthen tourism in U-thong district, and 2) should have travel routes for the elderly to come to travel in U-thong district.

Index Terms—*Routes Guide, U-thong District, Suphanburi Province.*

I. INTRODUCTION

U-thong District has many tourist attractions. Suphanburi Provincehad a lot of benefits from tourist such as incomes, infrastructure, modernity etc. Consistent with [1]saidthe importance of tourism has affected the country: 1) Social 2) Economy and 3)Related people

From data [2]found that there were tourists who visited suphanburi in 2015 there were 900,490 people, in 2016 there were 945,223 people, an increase of 4.97%. As a result, the average expenditure per tourist in 2016 was 1,470.78 baht per day, generating more than 1,390 million baht in tourism income. Therefore, if it can encourage tourists to visit suphanburi, it will generate a lot of income to the local people.

The Writing Routes Guide with various principles. So, [3] and [4] said manual writing principles can be summarized as follows: 1)Content 2) Language 3) Photo arrangement 4) Book arrangement and 5) Benefits and values

The travel route guide is importance to travel and the travel is importance tothe income of the communityand improving the quality of life of people within the community. For this reason, the researcher is interested in development of a routes guide innovation for historical, cultural and natural resources U-thong District, Suphanburi

Province.To be a part of generating income and promoting the quality of life of people in the community for the better

II. RESEARCH OBJECTIVES

The objective of this research article wasdeveloped a routes guide innovation for historical, cultural and natural resources U-thong district, Suphanburi Province

III. LITERATURE REVIEW

In this research, the researcher studied literature related to manual writing principles.To develop a routes guide innovation. Mainly in writing a manual

Some experts wrote the following principles:

[3]said the good manual has been: 1)accuracy ofthe content 2) completeness of content 3) the form of manual 4) sorting the difficulty of content 5) accuracy in language useand 6) benefit fromreading

[4] said the good manual has been: 1)Language used in the manual, should been in a language that has been easy to understand, not complicated, used formal languageand should not have many academic languages2) should have pictures 3) continuity and harmonyof content 4) book permanence: stapling,quality of paper, size of manual and 5)quality of the

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manual production and printing: size of the font, lay out, correctness of the language

[5] said the good manual has been: 1) the nature of the book consists of cover design, overview of manual, Quality of paper, font sizeand page layout.
2) pictureconsists ofsharp, realism, size, number of pictures,annotations. 3) content consists of method of presentation, sorting difficulty, harmonization of thepassage, accurate events, additional activities. 4) use of languageconsists of language accuracy, Clarity of the message, accuracy of use of vocabulary and5)the reader's initiative after reading the manual.

[6] said the good manual has been: 1) content: accuracy, completeness, homogeneity, appropriate to the reader 2) the use of language: been easy to understand, has used the word that people has known, right in the meaning, carefully with spelling, use less academic vocabulary3)formatof manual: size of manual, cover paper, cover design, paper used for printing, stapling 4) printing:font size and style, print sorting,punctuation,Paragraph, spell, margin spacingand details about printing and5) printing: components, foreword, contents, footnotes, bibliography, pictures, table.

According to the studied, it has found that writing a manual consisted of 1) content: accuracy, completeness,continuity, sorting difficulty, homogeneity, modernityandappropriate to the reader 2) the use of language: easy to understand, write fun, spell the word, writing was not complicatedacademic language use and clarity of the message3) photo arrangement: sharp image, suitable size, cover photos can spark interest and beautiful, pictures could generate interest,picture color, picture matches the contentand composition of the picture 4) book arrangement:Suitability for use,thickness of manual, stapling, paper used for printing, font size and styleclarity of the text and easy to use 5) benefits and values: clarity of the history of attractions, generate interest of tourists, has helped plan travel routes for tourists, made to know the landmark of attractions,made to know connect routes of travel of attractions,and made knowledge of the tourist attractions

IV. RESEARCH METHODS

A. Research Design

This research has 2 steps:

1) Checked the validity of innovation a routes guide for historical, cultural and natural resources U-thong district, SuphanburiProvince by the expects 9 key informants:

1) Assoc.Prof.Dr.CholladaPongpattanayothin
Dean, Factory Humanities and Social Sciences / Lecturer in Library and Information Science Bansomdejchaopraya Rajabhat University

2) Asst.Prof.SapiyaNoomee
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5) Assoc.Prof.Dr.SaknaratPrakobpon
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Lecturer in Industry of Tourism Suan Dusit University

9) Dr.RungnapaLertpatcharapong
Lecturer in Industry of Tourism Suan Dusit University

Data wereselected by using purposive sampling. 2) Checkedcomplacency of innovation a routes guide by tourists visited tourist attractions 385 peoples. Used data selection method by multistage random sampling. Data was analyzed by mean and standard deviation. The process of implementation consisted of

1)Documentary study from theory and related research of creating a travel route guide and the importance of tourist attractionsin U-thong district, Suphanburi Province

2) an area study of the importanceof tourist attractions in U-thong district, Suphanburi Province 3) Create a route guide innovation for Historical, Cultural and Natural Resources U-thong District, Suphanburi Province

4) soldto expert checked validity of innovation a routes guide

5) Updated on the advice of experts

6) Checked complacency of innovation a routes guide by tourists visited tourist attractions

7) Research finding

B. Research Process

Research process of this research had7 steps consisted of to analyze concept, studied in the areas, created innovation route guide, Checked the validity of innovation a routes guide by the expect,approve by the expect, Checked complacency of innovation a routes guide by touristsand Research finding. Steps were shown in Fig. 1.

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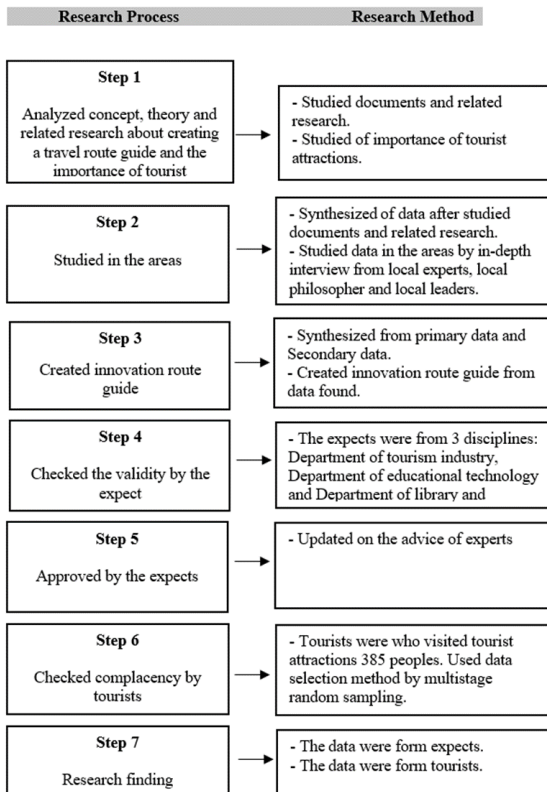
Fig.1 Research process for thedevelopment of a routes guide innovation for historical, cultural and natural Resources U-thong District, Suphanburi Province

C. Score Setting Criteria

This research used criteria of [7] has been

Average Score	Level of validity/complacency
4.51 - 5.00	highest
3.51 - 4.50	high
2.51 - 3.50	medium
1.51 - 2.50	low
1.00 - 1.50	lowest

V. RESULTS

Results indicated that

1) Created routes guide can be divided into 3 groups.Each group consists of a navigator map, pictures of landmarks of tourist attractions, important of tourist attractions,QR code showed history of attractions,Opening and closing time, etc. Example of innovation details were shownin Fig. 2-5

Fig.2 Examples of historical tourist routesmap

Pig.3 Landmarks of Wat khao phrasisanphetchayaram

Pig.4 Example of informationin the innovation

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Fig.5 Cover of innovation

2) The research found appropriateness of routes guide innovation by the expects.hasshown in table 1.

Table 1. Appropriatenessofroutes guide innovationby the expects

Appropriateness of routes guide	$\bar{X}$	S.D.	Level
1 Content	4.62	.429	The highest
2 The use of language	4.54	.325	The highest
3 Photo arrangement	4.44	.503	The high
4 Book arrangement	4.47	.329	The high
5 Benefits and values	4.56	.251	The highest
Average	**4.53**	**.318**	**The highest**

3) Checked complacency of routes guide innovation by tourists. has shownin table 2.

Table 2. Complacency of routes guide innovation by tourists

Complacency of routes guide	$\bar{X}$	S.D.	Level
1 Content	4.27	.48	The high
2 The use of language	4.23	.59	The high
3 Photo arrangement	4.27	.59	The high
4 Book arrangement	4.26	.50	The high
5 Benefits and values	4.41	.47	The high
Average	**4.29**	**.53**	**The high**

VI. DISCUSSIONS

The experts have had overallappropriateness has been at the highest level. It has divided into categories; the appropriateness of content was the highest, the average of 4.62 was the highest level because the content is easy to understand, easy to use and practical to use. Consistent with the research of [3] found a good book should contain content that is accurate, up to date, accepted in the field, difficult - easy to fit the reader. Content appropriate for the age and experience of the reader. The content includes author's initiatives and experiences that benefit the academics. The appropriateness of photo arrangementappropriateness has been the least level, the average of 4.44 was the high level because some picture was blurry correspond to [6] found the pictures in

thebook have been very important. It has been something that stimulates the reader's interest. Therefore, the pictures in the book has needed to convey meaning, relation with subject, sharp, etc.

The tourists have had overallcomplacency has been at the high level. It has divided into categories; benefit and values has beenthe highest, the average of 4.41 was the high level becauseinformation in the innovation has been usable. It has been the resulting information from collecting both primary and secondary information.Helping tourists to has got information from this innovationcorrespond to [3] has told the quality book meant a book that has been useful, important, reliable in the information and can be referenced. The use of language has been lowestlevel, the average of 4.23 was the high level because some of the languages used has been academic words. It has made difficult to understandcorrespond to [6] has told the use of language when writing a book requires language that has been easy to understand, has used the word that people has known, right in the meaning,carefully with spelling, use less academic vocabulary.

VII. RECOMMENDATIONS

A. Recommendations for Practices

1 Should print more routes guide innovation because it can actually be usedand help tourists to more interested.

2Within tourist attractions should have publicity boards.

B. Recommendations for Further Research

1 Other tourism innovations should be studied more.

2 Should study the route guide by using bicycle.

CONCLUSION

In conclusion, the findings from the analysisof
The expects and tourists have found aroutes guide innovationhas been consistent with theattractions, easy to understand,the information has been usable, has benefits and values but pictures should be improved to have more clarity, use of language should use words that are easy to understand and use less academic vocabulary.

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Study and Development of Temperature and Humidity Controller for Spreat Culti

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Abstract— Consumable sprouts are considered as very popular foods because of many benefits and nutrients. Since the sprouts can be easily prepared according to various recipes, the needs of consumers are increased. However, growing the sprouts in open areas is complicated and the sprouts must be closely cared. The production costs are high. Moreover, the factors of the growths of the sprouts (e.g. environment, water quantity, humidity, temperature, pest and climate) cannot be controlled. These affect growing the sprouts. The sprouts should not also be contaminated with germs and viruses from planting materials. Therefore, the purposes of this research study are to study and to develop the temperature and relative humidity control devices for growing the sprouts in order to automatically control the temperature and humidity inside the device. According to the experimental results, it was found that the appropriate temperatures were 26 - 30 degree Celsius. The suitable humidities were 90 - 95% RH. The device consisted of the seven components as follows: 1) the control system, 2) the temperature and relative humidity sensors, 3) the ultrasonic humidifier, 4) the water container, 5) the fan for increasing the humidity, 6) the fan for decreasing the humidity and 7) the sprouting shelves. By comparing the experimental results with that of general planting methods, the growing time was reduced for 37%. The used water quantity was lowered for 50 times. The sprouts could grow equally. The temperatures and humidities could be controlled as required by the sprouts.

Index Terms— Automatic Control System, Sprout, Growth Factor, Smart Farming

I. INTRODUCTION

Toxin-free vegetables, organic vegetables or sprouts such as sunflower sprouts, water spinach sprouts, microgreens and bean sprouts are crops having short production periods and being able to be produced all year. The vegetables can be produced for household consumptions or commercial purposes that can be a part-time job, develop food security as well as reduce the poverty and the lack of nutrients in developing countries because of the quick, simple and economical production and the high amounts of nutrients [1]. To produce the toxin-free vegetables, organic vegetables and sprouts having high qualities and safety for consumers, chemicals or hormones should not be used for stimulating the developments or growths of the plants [2], [3]. Presently, there are various methods for growing toxin-free vegetables and sprouts. There are also complicated methods requiring long time periods to nurture the plants. Some methods use chemical substances in order to maintain the freshness of the vegetables. The substances are harmful to consumers. Therefore, additional methods are invented and developed in order to improve watering the plants. Most developments are small devices that facilitate growing the plants. For example, timers are used for watering the plants and microcontrollers are used for releasing wastewater and circulating water. Planting machines that releases wastewater significantly waste water. Moreover, the water circulation systems may make the plants rotten easily because the environmental factors of the developments and growths of the sprouts as well as the sprouts should be free from the diseases and parasites from planting materials [4]. Furthermore, the concept of "smart farms" utilizes electronic, computer and information technologies that develop and facilitate farming in the form called smart farm system that applies scientific and technological knowledge according to the new economic development model of Thailand 4.0. It focuses on developing the country's economy by providing the technologies for farming. That is, it transforms traditional farming into modern farming that emphasizes on management and technologies (i.e. smart farming) [5]. Therefore, the purposes of this study are to design and develop temperature and relative humidity controller for automatically growing sprouts with the appropriate temperatures and relative humidity in order to solve the mentioned problems, to apply them to all sizes of devices, and to develop commercial devices.

II. Research Objectives

The purposes of this research study are to study and to develop the temperature and relative humidity control devices for growing the sprouts in order to automatically control the temperature and humidity inside the device.

III. Research Methods

A. Designing the Temperature and Relative Humidity Controller

To design the temperature and relative humidity controller for growing the plants, the engineering programs were used for designing and creating the 3D model in order to present the simulated dimensions of the shapes and components of the controllers that can ensure that the controllers and components were assembled correctly and consistently with the tasks [6]. The prototype was 40 centimeters wide, 40 centimeters long, and 80 centimeters high. It had the shelves for growing the sprouts. Each shelf was 10 centimeters from each other. There were three shelves. There was the water filling slot under the prototype. It has two sliding doors made of the acrylic materials. The appearance of the prototype was emphasized. It can be furniture in order to meet the needs of modern people. It has light weight. It is portable. It was a closed system in order to stabilize the temperature and relative humidity, to solve the climate problems obstructing the growths of the plants and causing rotten plants and to prevent the diseases and parasites as shown in Fig. 1. There were seven components as follows: 1) control system, 2) temperature and relative humidity sensor, 3) ultrasonic humidifier, 4) water container, 5) fan for increasing the humidity, 6) fan for decreasing the humidity, and 7) shelves for growing the plants, respectively, as shown in Fig. 2 and Fig. 3.
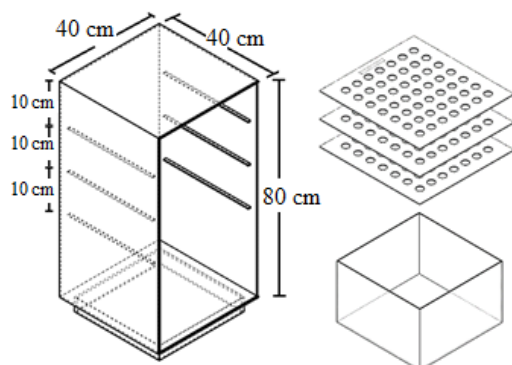
Fig. 1 The 3D model of the temperature and relative humidity controller
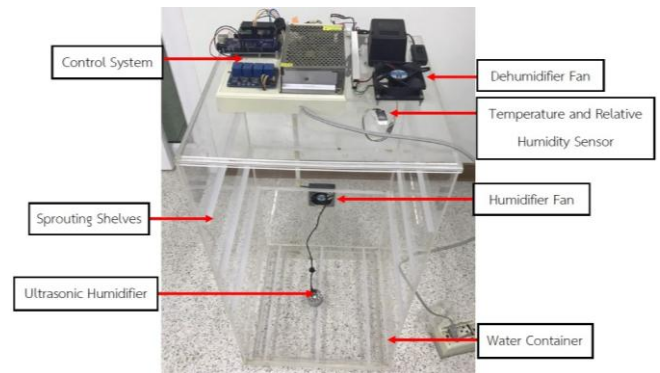
Fig. 2 The components of the temperature and relative humidity controller (in the front view)
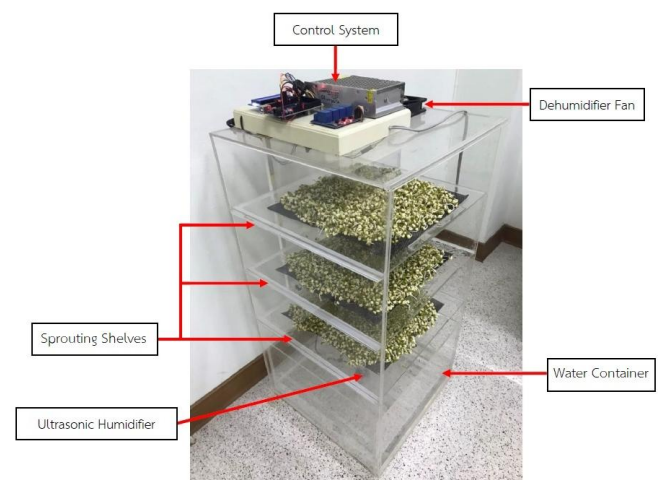
Fig. 3 The components of the temperature and relative humidity controller (in the isometric view)

B. Deigning the Temperature and Relative Humidity Controller System

The system controlling the environmental factor of the developments and growths of the sprouts used the microcontroller as the processing unit. The temperature and relative humidity sensor was installed through the processing unit in order to command the humidifier to adjust the humidity as required by the sprouts in the closed containers. There were the processes as shown in Fig. 4. The controller system consisted of the five main parts as follows: 1) the 220V to 24 V converter; 2) the Arduino MEGA 2560 controller board developed from ATmega 2560 with the 256 kilobytes of flash memory, eight kilobytes of RAM, 7 – 12 V power supply, 5V system, 54 digital inputs/outputs, and 14 pins supporting PWM outputs, 16 analog input pins, four UARTS (hardware serial ports), 4 megahertz of operating frequency, USB connection, AC to DC adapter, reset button, and connections to shields for connecting to Arduino Duemilanove or Diecimila; 3) the 220 V 10 A relay switch;

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4) the 16 x 2 LCD screen for displaying temperature and relative humidity; and 5) the ON/OFF switch as shown in Fig. 5.
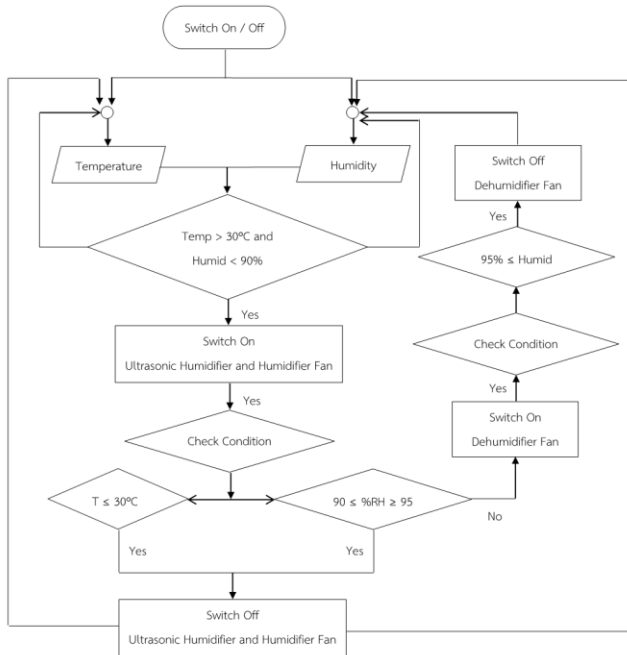
Fig. 4 Flow chart over all process
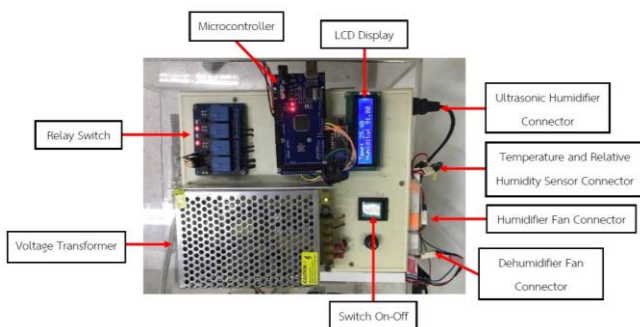
Fig. 5 The control system of the temperature and relative humidity controller

The temperature and relative humidity controller for growing the sprouts was a close system designed to be a package that can operate automatically. The controller had the DHT22 temperature and relative humidity sensor that had the high accuracy. It could measure the temperature within the range of -40 degree Celsius to 125 degree Celsius. Its deviation was ±0.5 degree Celsius. It could measure the relative humidity within the range of 0-100% RH. The deviation was ±2-5% RH. It had the 3 – 5 V power supply. It could measure the temperature and relative humidity inside the controller. It had the 24 V air ventilation fan reducing the humidity inside the controller if the relative humidity exceeds the specified limit, and it stopped working if the relative humidity reached the limit.

The 24 V ultrasonic humidifier could create the fog inside the controller if the relative humidity was lower than the specified value, and the 24 V fan taking the air into the controller in order to increase the humidity created by the ultrasonic humidifier for each shelf until the relative humidity reaches the specified value as required by the sprouts. The ultrasonic humidifier and fan could automatically stop running. The control system received the data from the temperature and relative humidity inside the controller. If the relative humidity was lower than the specified value, then the system would send signals to the ultrasonic humidifier and fan to start running in order to increase the humidity of each shelf. If the relative humidity reached the specified value, then the control system would send signals to the ultrasonic humidifier and fan to instantly stop running. If the relative humidity was higher than the specified value, then the system would send signals to the fan to decrease the relative humidity in order to control the temperature and relative temperature as required by the sprouts.

C. Testing the Temperature and Relative Humidity Controller for Growing the Sprouts

The temperature and relative humidity controller for growing the sprouts was tested in order to check the operations of the controller by comparing the temperatures and relative humidity measured by the controller and that of the wet-dry bulb hygrometer. The data were collected every one hour for five days in order to compare the accuracies and errors. Then, it was tested by growing the sprouts in order to evaluate the results with the developed controller and to compare the results with that from the traditional method.

IV. RESULTS

By measuring the temperature and relative humidity with the temperature and relative humidity controller for growing the sprouts and comparing the temperature and relative humidity with that from the wet-dry bulb hygrometer with the data collected every hour for five days, it was found that the appropriate temperatures were 26 - 30 degree Celsius. The appropriate relative humidity was 90-95% RH. The percentage of errors of the temperatures measured by the controller was 5.00 percent, and that of the relative humidity measured by the controller was 2.97 percent as shown in Fig. 6 and Fig. 7. The sprouts grew during the whole harvesting period of 48 hours. The average length of the sprouts was 13.75 cm as shown in Fig. 8.
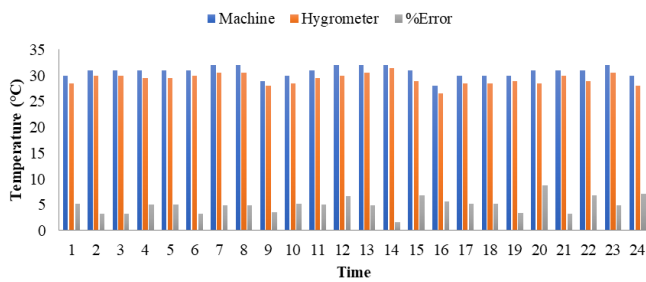
Fig. 6 The average temperature of the temperature and relative humidity controller and hygrometer for five days
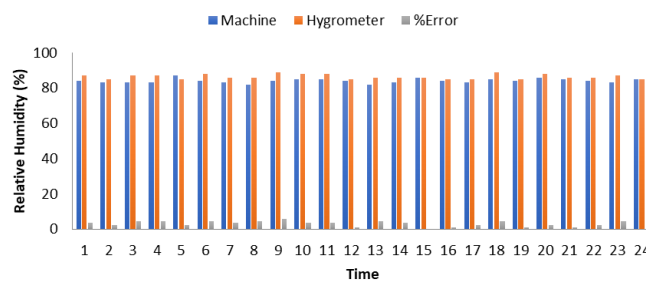
Fig. 7 The average relative humidity of the temperature and relative humidity controller and hygrometer for five days
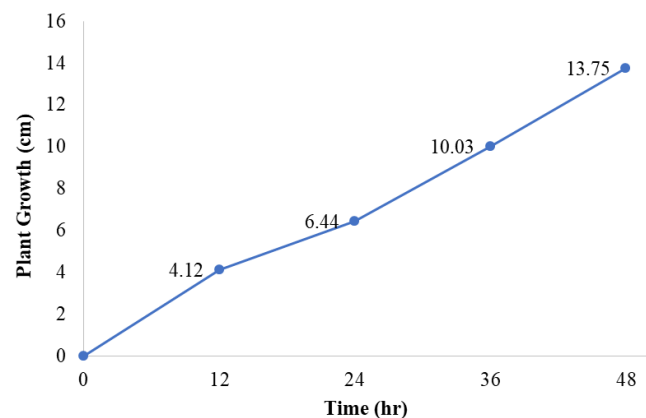
Fig. 8 The average growths of the sprouts during the whole harvesting period of 48 hours

V. Discussions

The present findings showed that the temperature and relative humidity affected the growths of the sprouts. According to the test results, it was found that the appropriate temperatures were 26 – 32 degree Celsius. The appropriate relative humidity was 90 – 95% RH [7]. This was consistent with S. Somwong and other [8], who developed the climate control system for growing microgreens. They also found that the appropriate temperature was lower than 30 degree Celsius as well as the appropriate relative humidity was 65-90% , respectively. The average length of the vegetables was longer than that from the general methods for about 3.2 centimeters. The

average weight of the vegetables was higher than that from the general methods for 70.51 percent. The harvesting period could be shortened for two to three days. For the developed temperature and relative humidity controller, the percentage of the errors about the temperature was 5%. The percentage of the errors about the relative humidity was 2.97%. This was acceptable. By comparing the results to that of the general methods, the growing period was shortened for 37%. The water amount was reduced for 50 times. The sprouts could grow similarly.

VI. Recommendations

A. Recommendations for Practices

1. The ultrasonic humidifier could reduce costs, especially for the water supply cost. It is suggested to be used by farmers or people interested in it.

2. The findings can reduce the costs regarding human resources and time. Particularly, the findings can be applied to plants with high values.

B. Recommendations for Further Research

1. Further studies applying this system to other plants should be conducted in order to obtain useful data.

2. This system used affordable measuring devices and control system as compared to the sensors in the market. The systems in the market are expensive, and the systems' climate settings cannot be set by users. Hence, the durability of devices should be tested in long terms.

CONCLUSION

The temperature and relative humidity controller for growing the sprouts could automatically control the temperature and relative humidity as required by the sprouts. The average percentage of the errors about the temperature and relative humidity was not higher than 5%. This was acceptable. The harvesting period was shortened for 37%. The water amount was reduced for 50 times. The sprouts could grow similarly, and the sprouts were toxin-free.

ACKNOWLEDGEMENT

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A causal relationship model of factors affecting competitiveness of community enterprise in the central region

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Abstract— The purpose of this research were 1) to investigate the competitiveness of community enterprise, 2) to measure an agreement, and 3) to find a structural model of knowledge management, transformational leadership, and human capital development affected to community enterprise's competitiveness. Multiphase mixed methods research applying quantitative research to extend qualitative results was used for research design. The qualitative target group was selected using purposive sampling whereas the quantitative sampling group was used two-stage random sampling. Questionnaires were used for measurement design. Qualitative data were classified and analyzed using content analysis and analytic induction. Quantitative data were analyzed by descriptive statistics and the developed model was validated by using LISREL program. The research found that 1) the overall competitiveness of community enterprise was in a high level. The interview result shown that the transformational leadership adopted the Sufficient Economy philosophy of "to do one thing at a time", encouraged members to have a positive attitude of sharing idea. The leader should seeking for new knowledge and sharing benefits equally, applying local resources and wisdom to human capital making product development such as chili paste from mushroom, herbal product, etc. 2) The competitiveness of community enterprise's empirical data had statistical agreement $x^2=339.19, df=90, P\text{-}value=.00$, most index were close to .90. The interview result found the successful of business came from product differentiate strategy. The product must be unique and stand out from competitors such as herbal compress, ikat silk, snack from rice, etc. There was also a cost leadership strategy be used. 3) The competitiveness of community enterprise was directly influenced by 3 factors; knowledge management (Direct Effect or DE=.26) transformational leadership (DE=.39) and human capital development (DE=.34) whereas indirect effects came from a transformational leadership by knowledge management (Indirect Effect or IE=.89) and human capital development (IE=.76). Therefor the model developed was acceptable and good to be used for forecast the competitiveness of community enterprise in the central region. The form of the 3 factors that affect to the competitiveness was 3L Model for SMEs Competitiveness based on the developing of members' abilities; supported knowledge, upgraded skill, etc. The head of community enterprise must emphasized on mission and goal setting, kindness, participation of members, motivation, employing competitive advantages of product differentiate, niche marketing, and cost leadership.

Index Terms— *Community Enterprise, Competitiveness*

I. INTRODUCTION

A community enterprise is a community about the production of products, provision of services, or other activities performed by a group of people within the relationship that have a common way of life and come together to operate such businesses to generate income and self-reliance of family, community, and between communities. Community enterprise has benefits for a society which leads to the development of high-quality human capital, generate income for the community, the communities are strong, able to rely on themselves, improving the quality of life of the people, and develop the economic growth of the country.[1]

Community enterprise promotes innovations, creating careers and jobs, encouraging consumption, as well as causing circulation in the country's financial system, consistent with the policy of the World Trade Organization,

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and support community-level entrepreneurship in setting up a business.[2] It was found that the operating problems of community enterprise in the central region include management, marketing, and production. To achieve the competitiveness of community enterprise, the central region should have components such as leadership, knowledge management, and the development of human capital of community enterprise.[3]

Community enterprise is the community that deals with product production, service provision, human capital development, leadership, knowledge management, and community creation to raise the quality of life of the people and supporting the economic development of the country forwards. This is why the research team is interested in studying the causal relationship pattern of factors affecting the competitiveness of community enterprise in the central region to develop leadership, knowledge management, and human capital development that can create a competitive advantage for community enterprise.

II. RESEARCH OBJECTIVES

The objectives of this research article were 1) to study factors of transformational leadership, knowledge management, and human capital development affecting the competitiveness of community enterprise in the central region. 2) to test for consistency of transformational leadership, the change of knowledge management, and human capital development affecting the competitiveness of community enterprise in the central region., and3) to find a pattern of transformational leadership, knowledge management, and human capital development affecting the competitiveness of community enterprise in the central region.

III. RESEARCH METHODS

A. Research Design

Action research and quantitative research were used and research tools were interview form and questionnaires. Data were collected from in-depth interview, focus group discussion and quasi-experimental design. Qualitative data from 30 key informants was analyzed by using content analysis whereas quantitative data collected from [4] 320 samples was analyzed by using descriptive statistics.

The researcher scope (a) Content scope of transformational leadership, knowledge management, human capital development, and competitiveness. (b) The scope of variables used in the research consisted of 1) the primary variables are transformational leadership,

knowledge management, and human capital development, and2) the dependent variable is competitiveness. (c) The scope of the area is community enterprise in the central region. (d) Population and samples scope.1) Population is customer and 2) Sample using the formula of Hair and others, [5] 20 times per parameter or number of paths equal to 16 paths, the sample was 320.

2.Sampling method using proportional to size by systematic sampling, selecting samples according to the location of the central region community enterprise includes Pathum Thani, Phra Nakhon Si Ayutthaya, Ang Thong, Singburi, Saraburi, and Lopburi [6]

3. Tools including interviews and questionnaires are divided into 5 parts: personal factors, knowledge management, transformational leadership, human capital development, and competitiveness of community enterprise.

4.Statistic includes frequency, percentage, mean, standard deviation, skewness, kurtosis, factor analysis for EFA, confidence, accuracy, and statistical package, finding the confirmation factor analysis (CFA) and test the hypothesis using Structural Equation Modeling (SEM) analysis to obtain Path Analysis. [7]

5. The qualitative data analysis was done by using content analysis and triangulation method from informants involved in knowledge management, transformational leadership, human capital development, and competitiveness for research in social with the use of the statistical package.

The process of implementation were consisted of 1) documentary study from primary sources including customer and the secondary sources include scripture commentary, research books, articles and other related documents, 2) an area study of community enterprise in the central region. understanding community enterprise group and stakeholders about the purpose of the operation and the target, 3) community enterprise volunteers who are the target audience and subscribe, 4) participants meeting in the community to find problems and the need to solve the problem together, 6) preparing materials, 7) doing, and 8) data processing at every stage of the compilation, analysis and presentation summarizing the findings.

B. Research Process

Research process of this research has developed into 4 steps were shown in Fig. 1.
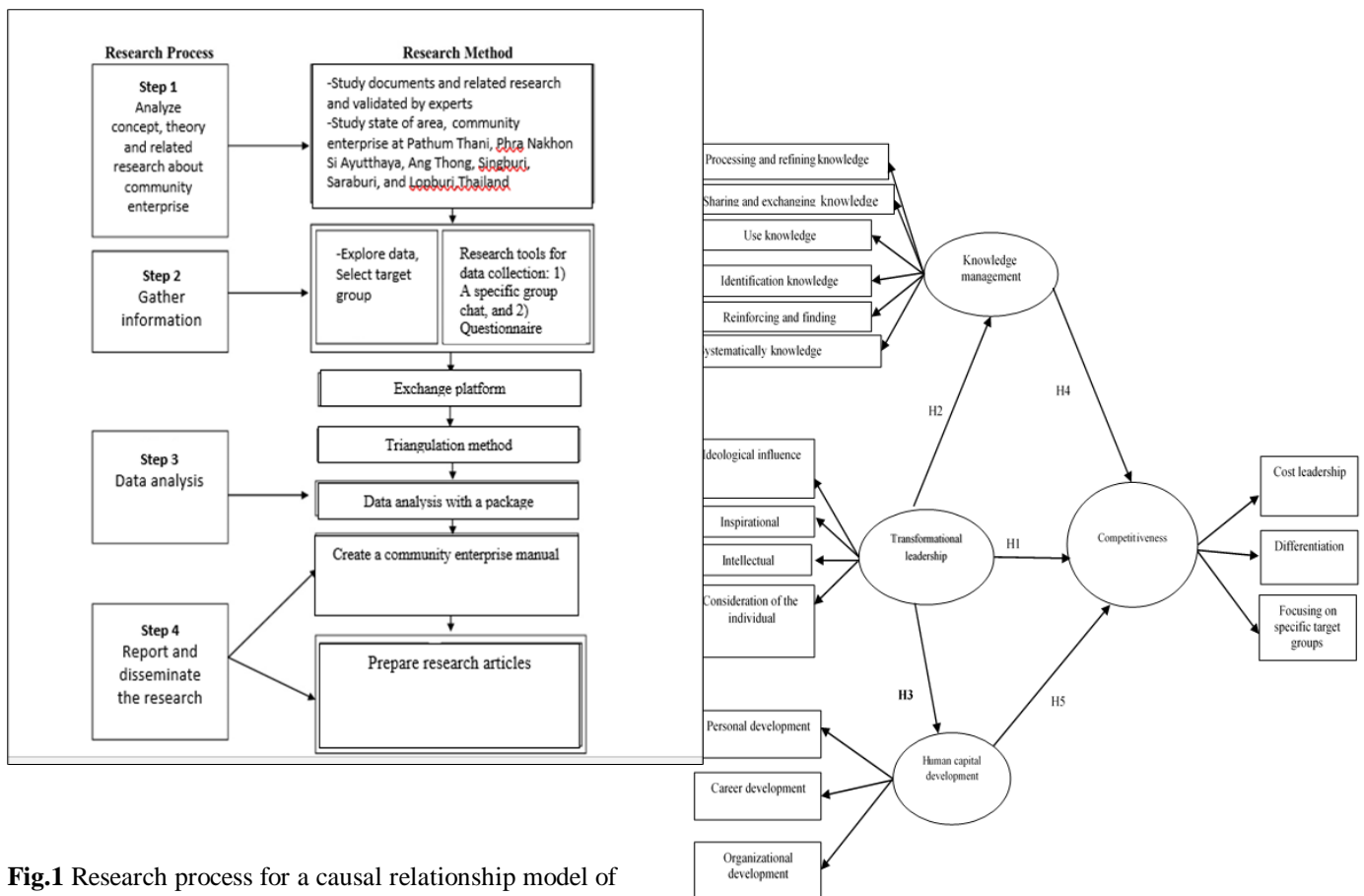
Fig.1 Research process for a causal relationship model of factors affecting competitiveness of community enterprise in the central region

B. Research Process

Fig.2 A causal relationship model of factors affecting competitiveness of community enterprise in the central region

REALATED LITERATURE

The competitiveness of community enterprises is driven by cost leadership, utilizing the ability to manage the business from upstream to downstream to have the most suitable low cost, differentiation by inventing a unique product design and better quality, and focus on the niche market based on.[8].[9].[10]. It was found that there are factors that support competitiveness, including :Transformational leadership consists of ideological influence, inspiration, intellectual stimulation and consideration of the individual, and sharing knowledge in the organization.[11].[12]. Knowledge management consists of the Office of the Public Sector Development Commission and human capital development consists of.[13].[14]

The conceptual framework has studied the background of the potential and problems of the enterprise. After that

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the customers' opinions were then surveyed about factors influencing the competitiveness of community enterprise, human capital development, transformational leadership, and knowledge management of community enterprise, which is consistent with the research hypothesis as follows:

1. Leadership variables have direct influence on the competitiveness of community enterprise.

2. Transformational leadership variables directly influence the competitiveness of community enterprises through the variables passed on knowledge management.

3. Transformational leadership variables directly influence the competitiveness of community enterprises through variables passed on human capital development.

4. Knowledge management variables directly influence the competitiveness of community enterprises.

5. Human capital development variables directly influence the competitiveness of community enterprises.

IV. RESULTS

Results indicated that 1) assessing the potential of community enterprises in the central region with an assessment form and situation analysis, it was found that the leaders of community enterprise management, market management, and knowledge management in overall is good, representing 78.17 percent. When considering the results of the assessment of the provincial potential in descending order, it was found that the results of the assessment of the highest potential were community enterprise of Ang Thong Province, representing 88.00 percent, followed by community enterprise in Saraburi Province, representing for 84.50 percent and the least is the community enterprise in Phra Nakhon Si Ayutthaya Province, representing 66.10 percent.

2) Strengths of community enterprises contains high quality and safe ingredients such as cultivated banana, Bhutan oyster mushroom, Jekchoy rice, etc. Products that are processed from herbs, Bhutan oyster mushroom, banana, fish, and loincloth, etc. Community products are certified by the Food and Drug Administration (FDA), Good Manufacturing Practice (GMP) standards, and Geographical Indication (GI) and community product distribution locations such as community markets, malls, Future Park Rangsit, and Zeer Rangsit. Government sectors such as Valaya Alongkorn Rajabhat University under the Royal Patronage and district and provincial government centers.

3) Weaknesses of community enterprises are some groups have insufficient raw materials for production or insufficient equipment such as fish grinder, fish scaling machine, flour production machine, etc. Place or house lacking standard and banana processing technique are not up to standard. Sometimes the processing of a product does not meet customer requirements such as cloth bags and delays in delivery.

4) Community enterprise opportunities, locations of most community enterprises come with convenient transportation that promotes unity and the income of the group. It also is a learning center for the sufficiency economy and agricultural and fish products processing. Customers have confidence in the reputation of products such as Mae La Dried Fish. Along with government sectors give support and promote the implementation of knowledge and budgets.

5) Threats of community enterprises, they face the weather like continuous rain, mushroom cubes formed a fungus, high price of mushroom cubes, delayed ordering of raw materials, many competitors, and packaging and branding are not up to standard and not interesting. In addition, most community products lack standard certification.

6) Competitiveness of community enterprises in the central region, overall is at a high level. When considering the factors affecting the competitiveness of community enterprises in descending order, it was found that the side with the highest average was transformational leadership of community enterprise, followed by community enterprise knowledge management, and human capital development, which the respondents had no different opinions and little information is distributed

7) Testing for the consistency of variables of transformational leadership of community enterprises, knowledge management of community enterprises, and human capital development affecting the competitiveness of community enterprises in the central region are as follows: (1) The analysis results of three variables were divided into Factor 1, namely transformational leadership of community enterprises, with 8 variables, 69.157% variance, and high confidence. Factor 2 was the knowledge management of community enterprises with 6 variables, 59.038% variance, and moderate confidence. Factor 3 was the human capital development of community enterprises with 2 variables, 30.146% variance, and confidence. (2) Model of the competitiveness of community enterprises is consistent with the empirical data because the variable weight is greater than .04, the chi-square (x2) is equal to 339.189, the degree of freedom (df) is 90, the probability (p) is .00, and the index is close to .90. In the structural model influence, the model path was found that the latent variables of the knowledge management factor of community enterprises have a direct influence on the latent factor variables. The competitiveness of community enterprises is equal to .26. The latent variables in transformational leadership of community enterprises have a direct influence on the latent variables on the competitiveness of the community

enterprise equal to .39. Human capital development variables of community enterprises have a direct influence on the latent factor variables on the competitiveness of the community enterprise equal to .34. The latent variables of transformational leadership of community enterprises indirectly influence the competitiveness of the community enterprise through the knowledge management variables of the community enterprise and the human capital development of community enterprises. Therefore, the developed model has good and acceptable predictability of the competitiveness of community enterprises in the central region, as well as the analysis results supporting the research hypothesis.

8. Patterns of transformational leadership, knowledge management, and human capital development affecting the competitiveness of community enterprises is 3L Model SMEs for Competitiveness. The operation of community enterprises takes into account the development of members' potential, support and promote knowledge and skills, organize a learning system. The chairman of the community enterprise has an attribute of kindness, raising awareness of members, alluring on works, members understand the goals and missions of the group. It also creates strategies to support competitiveness, including cost leadership, differentiation, and focusing on a niche market.

V. DISCUSSIONS

1. Comment level on transformational leadership, knowledge management, and the human capital development of community enterprises. It was found that respondents regarding transformational leadership were at a high level, in which leaders inspire, build up relationships, and cooperative work. It is consistent with the concept of [15] mentioned about the fundamentals of transformational leaders: inspiring subordinates to strive for action and in line with the research of [16] found that the administrators of Phato Sub-district administrative organization, Chumphon province were at a high level. Caused by the management to create awareness and motivation of the co-workers. **The knowledge management**, it was found that the respondents had opinions about knowledge management at a high level. The community enterprise group has recorded the successful work of personnel to create a systematic database and then use the information to work and solve problems. It is consistent with the concept of [17] mentioned about collecting data into categories and then show the results of the user needs and consistent with the research results of [18] It was found that personnel of the Tambon Administrative organization Laem Sing district, Chanthaburi province. There was a high level of opinion about knowledge management systematically. Along with

the development of human capital, it was found that the respondents were a high level of opinion about human capital development. The chairman supports and promotes new knowledge and skills to members. It is consistent with the research of [19] found that academic personnel in Suratthani Rajabhat University. There are opinions about human capital development at a high level.

2. Factors affecting the competitiveness of community enterprises were found that the knowledge management of community enterprises had a direct influence on the competitiveness of the community enterprises with a value of 0.26. Transformational leadership of community enterprises has a direct influence on the competitiveness of the community enterprise is equal to 0.39. The human capital development of community enterprises has a direct influence on the competitiveness of community enterprises with a value of 0.34. The test results of variables of transformational leadership, knowledge management, human capital development, and the competitiveness of community enterprises are consistent with the empirical data within acceptable criteria, the chi-square $(x^2) = 339.189$, the degrees of freedom (df) = 90, the probability (p) = .00, and most of the indices are close to .90. The results of hypothesis testing showed that transformational leadership, knowledge management, and human capital development have direct influences on the competitiveness of community enterprises. Transformational leadership has an indirect influence on the competitiveness of community enterprises at the statistical significance level of .01, consistent with the concept of [20] mentioned the characteristics of leaders affect the operational ability of the organization and consistent with the research of [21] found that transformational leadership includes ideological influence, inspiration, intellectual stimulation, and a positive influence on the performance of the organization. Knowledge management is consistent with the concept of [22] the learning of personnel, able to adapt to changing situations, and creates more potential and competitive advantages. It is consistent with the research results of [23] found that knowledge management to community organizations in self-reliance sustainable, by making a career in agriculture. Management of savings group for production and transfer of experience, make the community organization recognized and the trust of the people along with the human capital development and consistent with the research of [24] found that the human capital potential of entrepreneurs in the Thai software industry has a positive direct influence to compete.

4. Patterns of transformational leadership, knowledge management, and human capital development affecting the competitiveness of community enterprises.

From the research results, information synthesis was obtained. Patterns of transformational leadership,

knowledge management, and human capital development that affect the competitiveness of community enterprises are 3L Model SMEs for Competitiveness shown in figure Fig.3
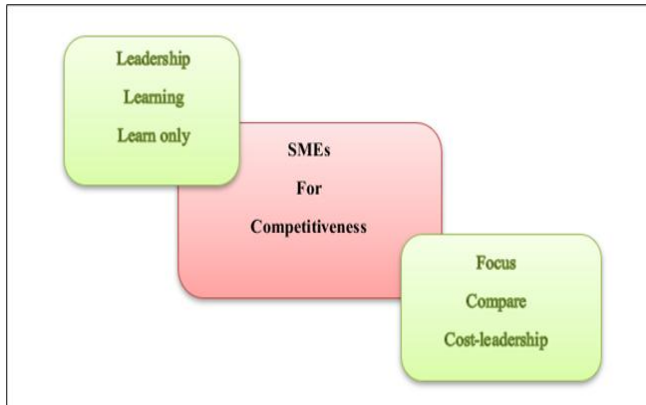
Figure3: Patterns of transformational leadership, knowledge management, and human capital development affecting the competitiveness of community enterprises.

From figure 3, it was found that community enterprises with competitiveness, strategies are set including 1) cost leadership (Cost-leadership: C) that producing products or services at low cost. Ready to present products and services that are lower than competitors in the market. 2) Compare (Compare: C) competitors to find the difference in the products or services, makes it stand out from the competition and 3) focus (Focus: F) on niche marketing to reach customer behavior. Resulting in repeated purchases of products or services and be loyal. In addition, human resources are important to drive community enterprises over competitors by thinking of transformational leadership (Leadership: L). The chairman of the community enterprise has an attribute of kindness, raising awareness of members, alluring on works, members understand the goals and missions of the group. 2) Gathering knowledge from members (Learning: L) with work notes to keep data systematic and all members have easy access to knowledge and 3) supporting and promoting members to perform their duties efficiently.

Therefore, the pattern of transformational leadership, knowledge management, and human capital development affecting the competitiveness of community enterprises. The competitiveness of community enterprises (SMEs for Competitiveness: FCC) consistent with [25] mentioned competitive strategies including cost-leadership, differentiation, and focus factors that support and promote the operation of community enterprises are as follows: 1) Leadership: L, consistent with the concept of [26]

mentioned to the fundamentals of community enterprise leaders. 2) Collecting knowledge from members (Learning: L) consistent with the [27] mentioned the concept of gathering and utilizing information and 3) support and promote members of knowledge and skills (Learn only: L) consistent with the 12th socio-economic development plan, strategic issue 1, the modification of desirable behavior of the country, develop potential knowledge and skills to live a life with value.

VI. RECOMMENDATIONS

A. Recommendations for Practices

1. Discover the privatized community enterprises and food products registered as a community enterprise for less than 5 years, there is an insufficient number of the equipment for the production such as fish grinders, flour production machines, etc., product processing is inconsistent with customer demand, the climate affects to the quality of production, and most community products lack standard certification. Therefore, a network of community enterprises in the central region should be created to achieve the exchange of knowledge, local wisdom, apply knowledge and use it properly, and there are public relations and publicizing products of community in a wide area.

2. Discovered that community enterprises that have recorded operating data to increase competitiveness should create a systematic database by technology.

3. Discovered how transformational leadership has a direct influence on the competitiveness of community enterprises should focus on inspiring cultivating awareness among members who focus on cooperative work target communication and mission to members to stimulate the operation of community enterprises to be efficient.

4. Discovered that the development of human capital has a direct influence on the competitiveness of community enterprises from asking community enterprises. Therefore, the group's chairman should be promoted to new knowledge and skills for effective work.

5. Related government sectors able to bring knowledge from research lead to planning the development of community enterprises in Thailand.

B. Recommendations for Further Research

1. Should study the network of community enterprise groups, Handicraft group Herbal products, woven fabrics, etc., in order to get the Nawatwithi Community Enterprise Network to support the ASEAN Community

2. Should study the development of community enterprises according to the principle of Nawatwithi Is bringing local wisdom.The way of life in the production of

local products under the concept of co-happiness, contemporary ways, together with the integration of community tourism.

3. They should study knowledge management of upstream, midstream, and downstream community enterprises and disseminate them to social media.

4. Should study human capital development, community enterprises in the dimension of skills development Learning development and attitude development Creating a social capital, trusting cooperation towards the development of community enterprise groups

CONCLUSION

In conclusion, the findings from the analysis of both quantitative and qualitative showed that a causal relationship model of factors affecting competitiveness of community enterprise in the central region. The research found that 1) the overall competitiveness of community enterprise was in a high level. 2) The competitiveness of community enterprise's empirical data had statistical agreement x^2=339.19,df=90,P-value=.00, most index were close to .90. 3) The competitiveness of community enterprise was directly influenced by 3 factors; knowledge management (Direct Effect or DE=.26) transformational leadership (DE=.39) and human capital development (DE=.34) whereas indirect effects came from a transformational leadership by knowledge management (Indirect Effect or IE=.89) and human capital development (IE=.76). Therefor the model developed was acceptable and good to be used for forecast the competitiveness of community enterprise in the central region. The form of the 3 factors that affect to the competitiveness was 3L Model for SMEs Competitiveness based on the developing of members' abilities; supported knowledge, upgraded skill, etc. The head of community enterprise must emphasized on mission and goal setting, kindness, participation of members, motivation, employing competitive advantages of product differentiate, niche marketing, and cost leadership.

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The Development of Online Training Curriculum base onMicro Learning and Online Social Network for Teacherin 21st Century in Test ConstructionTopic

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AbstractThe objectives of this research were 1) to develop the online training curriculum based on Micro Learning and Online Social Network for 21st century teachers on test creation, and 2) to evaluate the effectiveness of the online training curriculum based on Micro Learning and Online Social Network for 21st century teachers on test creation. The methodology was divided into 2 steps:Step 1was the development of the online training curriculum based on Micro Learning and Online Social Network for 21st century teachers on test creation by studying the problems and demands in examination creating including the demand on online training for Bangkok schools' teachers and executives using questionnaires. After that the information data gained from step 1 was used to design and develop the training curriculum then quality checked by the expert. The result found that the developed online training curriculum was in the highest suitability level. Step 2 was the effectiveness evaluation of the online training curriculum based on Micro Learning and Online Social Network for 21st century teachers on test creation by using the developed training curriculum with 30 Bangkok teachers from simple random sampling from the respondents in step 1 and willing to participate in online training on test creation.

The result found that 1) the evaluation on the teachers' test creation ability compared to the ability before and after joining the training from development scores of each trained teacher – 2 teachers (6.67%) performed very high development, 21 teachers (70.00%) performed high development and 7 teachers (23.33%) performed moderate development and 2) the quality evaluation in accordance with the assessment standards of The Joint Committee on Standards for Educational Evaluation which was evaluated by 30 participating teachers and executives of the 30 teachers were in good level for 4 standards. The standard with the highest mean was propriety standards ($\bar{\bar{x}}$ = 4.78). The next one was feasibility standards ($\bar{x}$= 4.74), Utility standards ($\bar{x}$= 4.71) and accuracy standards ($\bar{x}$= 4.64), respectively.

KeywordsTraining curriculum, Online training curriculum, Micro learning

1. Introduction

Presently, the world is in rapid advancement from the use of technology to connect every information together. The social changing trend in the 21st century then broadly affects the way of life in the society. Thai society in the past was simple with rarely change with was open and accepted the outside culture to adapt in the environment and way of life. When entering the 21st century, Thailand also changes to the World's trend due to the advancement of science, technology and information. The mentioned matters are the important factors for the age of borderless communication. The education development then is essential in order to prepare for the future (NawapohnChalaruk, 2015).

Teacher plays the important role in education process as their main task is to perform teaching as well as develop the quality student. Teacher needs to be professional, expert on both academic and modern teaching techniques in accordance with the World's

changes in technology and society for the learners to develop Thai society to compete with the global society (SomwangPhithiyanuwat. 2000). The desirable features of teachers in the 21ˢᵗ century are the insight knowledge of the subject, teaching expertise, able to develop the courses, lessons and course book planning focusing on the learners, invent the lessons that every learner can learn, allow the learners to learn from knowledge seeking, help the learners to understand the nature of science, math and technology and give the learners the opportunity to develop the motto, skills helping the learners to have sustainable learning. (Upper Secondary Education Bureau, 2014). Therefore, the teacher needs to continuously develop their skills because the quality of the teacher directly affects the students'. The high-quality teacher can greatly provide knowledge to the students.

The ability to create examination is the part of measurement and evaluation performance which is the important performance of the teacher as the examination is the essential tool to evaluate the ability of the students. The information from the examination reflects the quality of education, helps the teacher see the guideline to develop and improve the students including the teaching. SumreongBoonruengrat (2004) explained that the education evaluation tool helps the teachers, counselors, executives and researchers, acts as the tool to inspect the development of the students' intelligence, mind and society how much it develops according to the educational target. The result is used to improve or develop the students and education process. This is in accordance with UtumpohnJamonman (2002) who explained that examination provides the result of students' performance, teachers' teaching, educationist planning and the management of the educational institute. Therefore, the examination is influential on education, students, teachers, executives, people, educational institutes, educational development plans and the country eventually.

The teacher then must not ignore the importance of test creation as ChawanPearatkul (2009) explained that the teacher has important task to create the better and unique measurement tool for the perfect measurement. The tool can be created in any way to stimulate the students to express the behaviors that the teacher needs to evaluate with the method to measure such behavior. Which examination is better depends on how accurate and suitable the examination points out the effectiveness line. Therefore, the researcher team are interested in developing the online training curriculum for 21st century teachers on test creation by using the lesson focusing on micro learning together with online social network. Micro learning is the gradual learning using small amount of time that can be used with daily routine of working people such as watching 2-3 minute video clip, doing built-in answer quiz or reading short passages. This way can facilitate the participants in term of data accessing, travelling as well as reduce budget in each training in the long term.

2. Aim

1. To develop the online training curriculum based on Micro Learning and Online Social Network for 21st century teachers on test creation.
2. To evaluate the effectiveness of O online training curriculum based on Micro Learning and Online Social Network for 21st century teachers on test creation.

3. Definitions

Training Curriculummeans a total package of learning activities designed to achieve. the objectives of the training program.

Online Training is the distance learning, or e-learning and online training is a form of instruction that takes place completely on the internet. It involves a variety of multimedia elements, including graphics, audio, video,and web-links, which all can be accessed through one's internet browser.

Micro learning meanssmall learning units and short-term learning activities. The term is used in e-learning and related fields in the sense of learning processes in mediated environments.

4. Methods

This research aimed to develop the online training curriculum based on Micro Learning and Online Social Network for 21st century teachers on test creation.
The methodology was divided into 2 steps.

Step 1 was the development of online training curriculum based on Micro Learning and Online Social Network for 21st century teachers on test creation.

1. Study the problems and demands in examination creating including the demand on online training for Bangkok schools' teachers and executives using questionnaires.

2. Design and develop training curriculum using the information from step 1 in the training development.

3. Draft online training curriculum composing of principles, course objectives, structure, training time, content, training activities and measurement and evaluation of training.

4. Review the suitability of the course by the expert.

5. Improve and develop the course.

Step 2 was the effectiveness evaluation of online training curriculum based on Micro Learning and Online Social Network for 21st century teachers on test creation by using the developed course with 30 Bangkok teachers in the sampling group answering the questionnaire from simple random sampling. The online training was done from December 2019 – February 2020 then the online training curriculum effectiveness evaluation was divided into 2 parts – 1) the evaluation on the teachers' test creation ability compared to the ability before and after joining the training from development scores of each trained teacher and 2) the quality evaluation in accordance with the assessment standards of The Joint Committee on Standards for Educational Evaluation by 30 participating teachers and 30 executives.

5. Results

This research was the development of the online training curriculum based on Micro Learning and Online Social Network for 21st century teachers on test creation with the result as followed:

1) The development of the online training curriculum based on Micro Learning and Online Social Network for 21st century teachers on test creation.

1.1 The study of problem and demand of teacher on creating examination and participating in online training by using face validity test from the expert and gather the data from the teachers and executives in Bangkok from the simple randomization in 50 districts of Bangkok, 1 school per district. After that 10 of teachers and executives from each school were randomized for total

500. It was found that 462 participants (92.4%) were interested in test creation training and 357 participants (71.4%) were interested in joining online training. However, 116 participants were uncertain if they could participate in scheduled online training. Therefore, 241 participants (42.8%) were interested on participating in online training on test creation and were certain about their participation.

1.2 The researcher team have drafted the online curriculum by presenting the information from step 1 with the curriculum development then created online training curriculum composing of main objective, structure, duration, content, training activity and measurement and training evaluation.

1.3 The inspection of online training curriculum suitability by the expert found that the concordance index was between .80 to 1.00 and in the highest suitability level.

2) The evaluation of the effectiveness of online training curriculum based on Micro Learning and Online Social Network for 21st century teachers on test creation.

1.1 The evaluation on the teachers' test creation abilit compared to the ability before and after joining the training from development scores of each trained teacher – 2 teachers (6.67%) performed very high development, 21 teachers (70.00%) performed high development and 7 teachers (23.33%) performed moderate development as shown in table 1.

Table1 Number and percentage of teachers participating online training with developmental scores after receiving training, classified by development level.

Relative Gain Score	Development level	No. of teachers	Percentage
76 - 100	Very high	2	6.67
51-75	High	21	70.00
26-50	Moderate	7	23.33
0-25	Low	-	-
		30	100

1.2 The quality evaluation in accordance with the assessment standards of The Joint Committee on Standards for Educational Evaluation which was evaluated by 30 participating teachers and executives of

the 30 teachers were in good level for 4 standards. The standard with the highest mean was propriety standards ($\bar{\bar{x}}$ = 4.78). The next one was feasibility standards ($\bar{x}$= 4.74), Utility standards ($\bar{x}$= 4.71) and accuracy standards ($\bar{x}$= 4.64), respectively. As shown in table 2.

Table 2Mean and standard deviation of online training on test creation quality evaluation

Items	Teachers			Executives			Total		
	$\bar{x}$	S.D.	Interpret	$\bar{x}$	S.D.	Interpret	$\bar{x}$	S.D.	Interpret
1. Utility standards	4.71	0.23	Good	4.19	0.24	Good	4.45	0.21	Good
2. Feasibility standards	4.74	0.17	Good	4.23	0.26	Good	4.48	0.24	Good
3. Propriety standards	4.78	0.15	Very good	4.36	0.20	Good	4.57	0.23	Very good
4. Accuracy standards	4.64	0.22	Very good	3.99	0.28	Good	4.31	0.27	Good

6. Discussion

The research results revealed that the evaluation on the teachers' test creation ability compared to the ability before and after joining the training from development scores of each trained teacher – 2 teachers (6.67%) performed very high development, 21 teachers (70.00%) performed high development and 7 teachers (23.33%) performed moderate development consistent withthe research of Soraya (2010) showed that development of an online learning, there were significant differences between learners' pretest and posttest at .05 level. For the quality evaluation in accordance with the assessment standards of The Joint Committee on Standards for Educational Evaluation which was evaluated by 30 participating teachers and executives of the 30 teachers were in good level for 4 standards. The standard with the highest mean was propriety standards ($\bar{x}$ = 4.78). The next one was feasibility standards ($\bar{x}$ = 4.74), Utility standards ($\bar{x}$ = 4.71) and accuracy standards ($\bar{x}$ = 4.64)consistent with the research of Phusit (2012)presented that the strategy for promoting self-regulated learning strategies in online context composed of video, studying paper, voice, assignment, web-board, online chatting and social network have affects the level of their self-regulated learning strategies and the learning achievement at statistical significance.

Suggestions

Recommendation for applications

1. The interest parties should study online training curriculum to be able to arrange the complete training according to the content.

2. Since it is online training curriculum, the constant communication with the participation is needed to create the inspiration in the course.

3. As the ability to create examination is the skill from practicing, those who are interested need to stimulate the participants to practice creating and commenting the examination for the mutual learning.

Recommendations for the next research

1. The training period and result follow up after the training should be added to develop the further training curriculum.

2. There should be other online curriculums to help reduce the training budget, increase data accessibility for the participants, reduce travel burden and able to manage training duration by themselves.

Acknowledgment

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APPROACHES TO DEVELOPING FUTURE TEACHER LEADERSHIP TO ENHANCE STUDENTS' HUMAN VALUE CREATING GLOBAL CITIZENSHIP

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Abstract

This research aims to: 1) study the present and desirable states and priority needs of future teacher leadership development; 2) propose approaches to developing future teacher leadership to enhance students' characteristics based on the human value creating global citizenship concept. This study used a mixed-method approach. The sample population comprised 220 volunteer student teachers, 68 school administrators and teacher mentors, plus 16 experts, totally 304. The research instruments were questionnaires and interviews, plus an evaluation form. Data were analysed by frequency, percentage, mean, standard deviation, Modified Priority Needs Index ($PNI_{Modified}$) and content analysis. The research findings reveal that there are 4 future teacher development main approaches: 1. Develop student teachers' personal growth to be the role models coaching students to conduct knowledge and wisdom-based lives and to respect human value in themselves and others; 2. Exalt student teachers' leadership competency to be the role models having a service mind, equipping students with team working skills and social justice-based interaction capacity; 3. Cultivate a model teacher's spirituality in student teachers to support students to conduct their lives based on sufficiency and sustainability; 4. Enhance student teachers' potential to become the model researchers endowing students with dialectic critical thinking through proactively practical guidelines.

Keywords: Future teacher leadership development; Students' characteristics based on the human value creating global citizenship concept; Student teachers.

Introduction

Human-oriented education and promotion of understanding amongst educational administrators, teachers, students and all the parties concerned about human value in themselves while respecting human rights and dignity of others have become a critical issue worldwide. As the human value creating theories and concepts have significantly contributed to fostering a global citizen and cultivating beliefs in peace and tranquility in the society, many studies have been conducted on such theories and concepts in both western and eastern regions, especially the latter. In eastern countries, where people-oriented development has become high on agenda of national and international academic forums. Furthermore, it was highlighted in an Education for Sustainable

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Development conference organized by UNESCO at University of London Research Institute, England, in May 2018 (cited in Sharma, 2018) where many academics and researchers reflected on value creating education and practical guidelines for investigations on global citizenship emphasizing any paradigms and perspectives to be applied as the approaches for learning to live together. This was an intriguing concept which led to the formulation of key issues and queries for national development research under the main topic of education for global citizenship (UNESCO, 2014). Also, it was referred and stated in national plans and policies in various countries, including Thailand where human resource development has been focused and cited in its national plans, such as the present national economic and social development plan (from 2017-2021), Thailand national education standards 2018 and national education plan (from 2017-2036). Moreover, educational development plans and strategies at many levels have addressed the significance and need of developing human resources along with promoting a learning and peaceful society that will pave the way for attaining the country's vision of stability, prosperity and sustainability.

In the new era of 4.0, it requires development of human resources and enhancement of the characteristics of both quality teachers and students, to be equipped with ethical values and to keep pace with any global changes. Besides academic and ICT capacities, it is necessary that the philosophy of value creating education and the related beliefs are translated into action, being integrated into any educational institution or school curriculum, programs and activities. Due to the main objective of the Human World study with an emphasis on developing the new generation people's potential and capability, any parties and organizations in charge of educating and growing young people have to apply the value creating education principles through their instructional activities and pedagogies aiming to cultivate humanity in an individual. Such principles focus on the role of education in building respect for human dignity, growing a person who is reliable and creates value through dialectic critical thinking, with a service mind and concerns for social justice, and who leads a life based on both knowledge and wisdom, while holding sufficiency and sustainability (Ikeda, D., 2009). This will lead to success in life and a peaceful society. Hence, apart from the 21st century skills: learning and creating innovations, ICT competency as well as life and career skills, school administrators, teachers and all the parties concerned should apply the human value creating education principles and concepts as well as the global citizenship philosophy, translating them into practice so that young and new generation learners are endowed with human value sustaining their respect for themselves and others, a service mind and capability of living a life based on both knowledge and wisdom, which are the main complementary elements of the human value creating philosophy towards development of a global citizen (Charoenkul, N. et al., 2019).

To develop students as human resources holding the future of the nation and the world, teachers have considerable influence on and take an important role in creating and enhancing students' desirable characteristics to respond to the need of the society and to tackle with any problems effectively. For driving human resource development and manpower in the 4.0 era, it requires power and leadership skills of the new generation teachers and those who tend to be future teachers, who will efficiently impart to students the essential knowledge, skills and desirable characteristics for being the human value creating global citizens who will meaningfully pass on their virtues to create the great value for the society and the world. Accordingly, future teachers need to continuously develop themselves to be the model teachers who coach and advise their

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students while collaborating with and advocating them from time to time (Fairman, J.C. & Mackenzie, S.V., 2015). Furthermore, they also need to be well equipped with teacher leadership qualities and skills in all dimensions: growth as a teacher; growth as a researcher; growth as a leader and personal growth, while being concerned about context, impact, and challenges (Poekert, P.E. et al., 2016). To effectively drive the national education development plan, it is necessary to promote strength and to develop graduates, especially in the field of education, to be endowed with the indispensable qualifications of the quality and valuable citizens of the nation and the world. In this regard, it is essential to carry out a study on the approaches to developing future teacher leaders who will play a significant role in enhancing students' characteristics based on the human value creating global citizenship concept.

This research aims to: 1) study the present and desirable states and priority needs of future teacher leadership development enhancing students' characteristics; 2) to propose approaches to developing future teacher leadership enhancing students' characteristics based on the human value creating global citizenship concept.

Research Methodology

This research applied a mixed method approach consisting of both quantitative and qualitative designs, with the main 2 phases as follows.

Phase 1. involved a quantitative study on the current and desirable states as well as priority needs of developing future teacher leadership enhancing students' characteristics based on the human value creating global citizenship concept. Population and sample population comprised 68 middle-level school administrators or heads of the subjects/heads of the divisions and teacher mentors/supervisors --academic staff in charge of student teacher supervision--, as well as 220 volunteer student teachers in the course of their apprenticeship at schools or educational institutions nationwide. This study followed a universal criterion on the sample size of population, with error allowed at +/- 5 % (Krejcie, R.V. & Morgan, D.W.,1970). The research instrument was divided into 3 sets of 5-point rating-scaled questionnaires for school administrators, teacher mentors/supervisors and student teachers. The questionnaires cover the current and the desirable states of instructional management and development of students' characteristics based on the human value creating global citizenship concept and the desirable state of teacher leadership and future teacher leadership development. They were verified in terms of content validity by 5 experts in educational management, leadership and global citizenship, with the Index of Congruence (IOC) of 0.80-1.00 or over 0.50 as a standard criterion for selecting the appropriate and valid items (Kanchanavasee, S., 2009). Data were analyzed by frequency, percentage, mean and standard deviation (S.D.). The mean values were analyzed and classified into 5 levels: 4.50-5.00 stands for the current/desirable state at the highest level; 3.50-4.49 means the high level; 2.50-3.49 stands for the moderate level; 1.50-2.49 means the low level, and 1.00-1.49 stands for the lowest level. For Modified Priority Needs Index (PNI$_{Modified}$), the formula $PNI_{Modified} = (I-D) / D$ was applied, having "I" for the desirable state of student teachers' instruction and of developing students' characteristics based on the human value creating global citizenship concept, and "D" for the current state of student teachers' instruction and of developing students' characteristics based on the human value

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creating global citizenship concept. The data derived from phase 1 were primarily used for drafting the approaches to developing future teacher leadership enhancing students' characteristics based on the human value creating global citizenship concept.

Phase 2. was related to a proposal of the approaches to developing future teacher leadership enhancing students' characteristics based on the human value creating global citizenship concept. A qualitative approach was applied for collecting the key data concerning the ideas and suggestions from 3 groups of respondents, concerning development of future teacher leaders to enhance students' desirable characteristics based on the human value creating global citizenship concept. This phase was divided into 2 parts: interviewing with the selected 30 middle-level school administrators (heads of subject/of division) and teacher mentors /supervisors with knowledge and experience in coaching and supervising student teachers, plus 30 representatives of volunteer student teachers from each major field who had actively participated and provided some intriguing ideas in phase 1, and having 16 academics, with expertise in value creating education, global citizenship, development of human resources in education, student teacher mentoring and supervision, verify appropriateness and feasibility of the approaches to developing future teacher leadership enhancing students' characteristics based on the human value creating global citizenship concept. The research instruments included semi-structured interviews to collect in-depth data from administrators, teacher mentors /supervisors and student teacher representatives about instructional and learning management activities to enhance students' characteristics based on the human value creating global citizenship concept, and approaches to developing future teacher leadership. A 5-point rating-scaled evaluation form, including open-ended questions, for appropriateness and feasibility of the drafted approaches to developing future teacher leadership was distributed to the cooperative experts. Data were analyzed by frequency, percentage and content analysis, choosing some interesting ideas relating to future teacher leadership of student teachers who were supposed to take a critical role in improving students' soft skills and global citizenship characteristics. Whereas data derived from the experts who verified the drafted approaches were analyzed using mean, standard deviation and content analysis.

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Research Results

Items	All groups of respondents					
	Current (D)		Desirable (I)		PNI$_{Modified}$	Rank
	$\bar{x}$	S.D.	$\bar{x}$	S.D.		
1.Respect human value in oneself and others	3.74	0.85	4.62	0.64	0.235	2
2.Hold sufficiency and sustainability	3.75	0.82	4.59	0.65	0.224	4
3.Root the service mind, team working skills and social justice-based interaction	3.83	0.85	4.66	0.63	0.217	5
4.Encourage proactively practical guidelines for enhancing dialectic critical thinking	3.78	0.85	4.65	0.60	0.230	3
5.Lead a life based on both knowledge and wisdom	3.74	0.82	4.67	0.59	0.249	1
Total	**3.77**	**0.84**	**4.64**	**0.62**	**0.231**	

Table1. The overall results of the current and desirable states and PNI$_{Modified}$ of future teachers' instruction to enhance students' characteristics based on the human value creating global citizenship concept.

From table 1, it turns out that, overall, the current state of instruction by student teachers or future teachers to enhance students' characteristics based on the human value creating global

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citizenship concept was at the high level ($\bar{x}$=3.77, S.D.=0.84), with the highest mean on rooting the service mind, team working skills and social justice-based interaction
($\bar{x}$=3.83, S.D.=0.85). Whereas the desirable state is, overall, at the highest level ($\bar{x}$=4.64, S.D. 0.62), having the highest mean on leading a life based on both knowledge and wisdom ($\bar{x}$=4.67, S.D.=0.59). The result of priority need analysis reveals that the aspect with the highest need index is leading a life based on both knowledge and wisdom ($PNI_{Modified}$= 0.249), followed by respecting human value in oneself and others ($PNI_{Modified}$=0.235).

An Overall Picture of the Desirable State of Future Teacher Leadership and Leadership Development	All groups of respondents		
	Desirable State		Rank
	$\bar{x}$	S.D	
Leadership			
Modelling	4.67	0.54	1
Coaching	4.63	0.61	3
Collaborating	4.56	0.61	8
Advocating	4.60	0.59	6
Leadership Development			
Growth as a teacher	4.61	0.57	5
Growth as a researcher	4.54	0.60	9
Growth as a leader	4.62	0.59	4
Personal Growth	4.66	0.56	2
Impact	4.56	0.64	8
Challenges	4.50	0.68	10
Context	4.59	0.61	7
Total	**4.59**	**0.60**	

Table2. The overall picture of the desirable state of future teachers' leadership and leadership development.

With reference to table 2, it demonstrates that the desirable state of leadership and developing future teacher leadership, overall, is at the highest level ($\bar{x}$ =4.59, S.D.=0.60), with the highest mean on modeling ($\bar{x}$=4.67, S.D.=0.54), followed by personal growth ($\bar{x}$=4.66, S.D.=0.56) and coaching ($\bar{x}$=4.63, S.D.=0.61).

According to the interviews and additional suggestions from 60 administrators, teacher mentors/supervisors and student teacher representatives from each major subject who provided some intriguing ideas on the approaches to developing future teacher leadership enhancing students'

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characteristics based on the human value creating global citizenship concept, new generation teachers should be earnestly coached and should develop themselves to be leaders, while being the role models for their students, especially in work process managing, team working skills, teaching and learning capacities and other skills that help enhance the soft skills, such as being responsible, punctual and courteous, being equipped with professional ethics and teacher spirituality, having a service mind, and being capable of differentiating between fairness versus partiality and courage versus vulgarity, etc. Apart from this, future teachers should continuously improve themselves in managing a teaching plan and creating innovative teaching instruments using ICT and various kinds of applications and social media. Furthermore, they should actively collaborate with teacher mentors and school staffs as well as student teachers from other institutions in arranging any social interaction activities to promote students' concerns about diversity and cross-cultural understanding, adaptability to any situations by refusing and avoiding violence, creating an atmosphere conducive to collaborating and living happily with others, while holding sufficiency and sustainability. Moreover, the administrators and teacher mentors emphasized the significance of the principles of sufficiency and sustainability that could be imparted to student teachers or future teachers and further transferred to students through instructional and active learning activities, by integrating teaching and classroom research in conformity with such principles. However, school administrators, teacher mentors/supervisors could facilitate student teachers to fully improve themselves and their teaching focusing on the ultimate goal of student development.

The research findings reveal that there are 4 main approaches to developing future teacher leadership as shown in Figure1.

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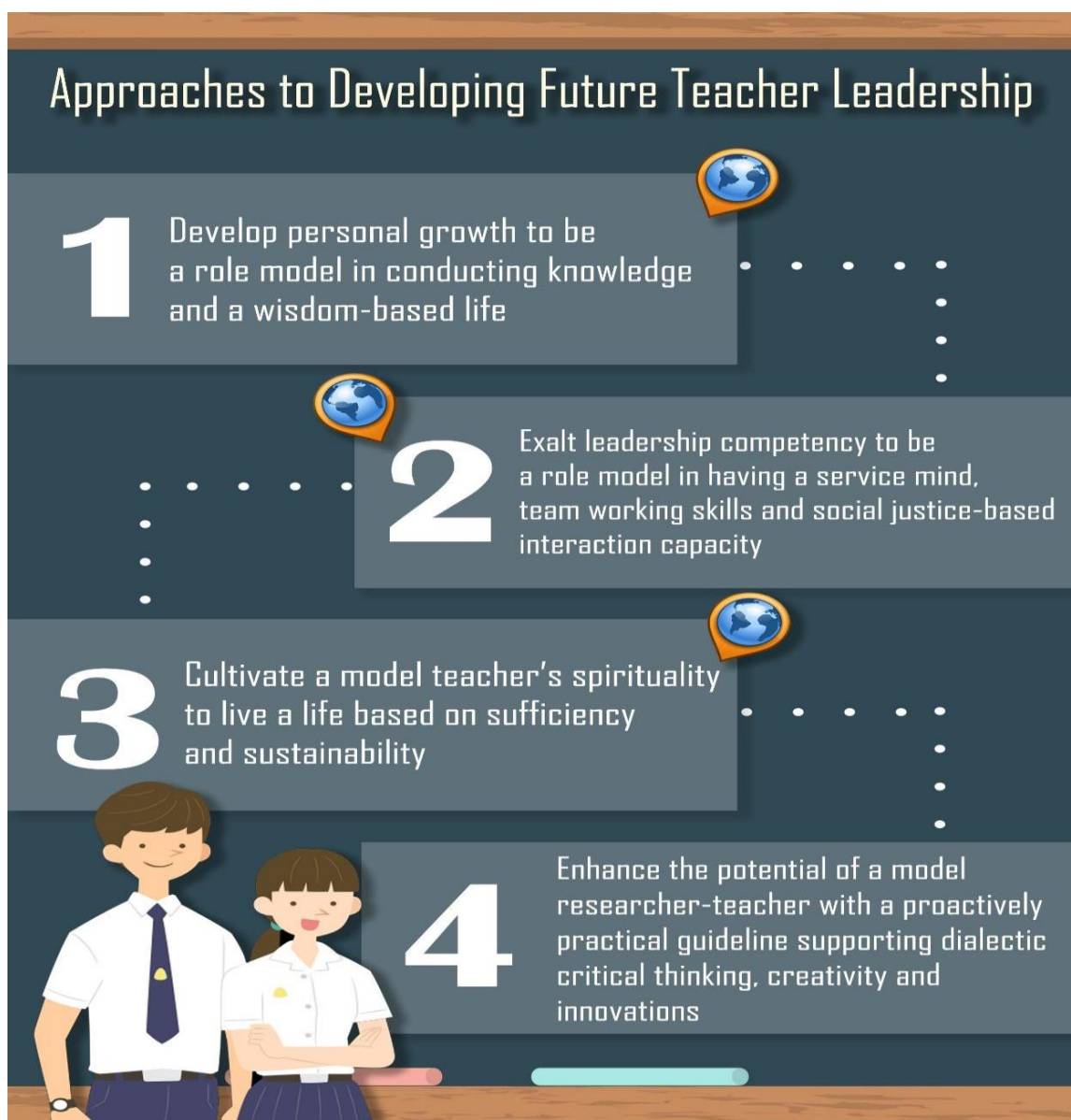
Figure 1.. Approaches to Developing Future Teacher Leadership   to Enhance Students' Human Value Creating Global Citizenship

Figure 1 presents 4 main approaches to developing future teacher leadership which is expected to help enhance students' characteristics of people-oriented global citizens who meaningfully create value for the society and the world. These approaches cover 8 procedures and 5 goals, of which the details are as follows.

Approach 1 Develop student teachers' personal growth to be the role models

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guiding, coaching and supporting students to conduct knowledge and wisdom-based lives and to respect human value in themselves and others for living together happily and harmoniously, with 2 procedures and 2 goals.

Procedures:

1) supervisors of the student teachers, teacher mentors and the student teachers themselves collaborate in planning, defining and supporting personal growth of student teachers by advising them to learn from some model teachers and academics, to conduct lives based on both knowledge and wisdom, to respect values in themselves and others for living together in happiness and harmony, to be flexible and adaptable to any situations, to be capable of teaching and communicating across cultures, to keep pace with new technologies and media, as well as to have team working skills.

2) Student teachers enhance their own personal growth, developing themselves continuously to be a role model for their students, to coach, train and support students to live their lives based on knowledge and wisdom and to respect values in themselves and others for living together in happiness and harmony. In addition, student teachers collaborate with their supervisors and teacher mentors in monitoring, concluding and carrying out the lessons learned for self-development.

Goals:

1) Students can conduct their lives based on knowledge and wisdom, effectively cope with their emotions and stress, and be adaptable to any situations.

2) Students respect human value in themselves and others, and have positive interactions with peers/seniors and juniors.

Approach 2 Exalt student teachers' leadership competency to be the role models concerning having a service mind, guiding, coaching and equipping students with team working skills and social justice-based interaction capacity, with 2 procedures and a goal.

Procedures:

1) Teacher mentors and supervisors of student teachers provide guidance and suggestions, and monitor to assure that student teachers can improve their leadership competency, especially in having a service mind, through some case studies, knowledge exchanges and lessons learned activities that help elevate themselves to be the model leaders. Furthermore, student teachers can apply what they have learned as guidelines for teaching and transferring the positive characteristics, such as being able to cope with emotions and stress, having a service mind and team working skills, to their students.

2) Student teachers upgrade their leadership competency to be the model teacher leaders through case studies, trainings and seminars, field trips, so that they can coach, train and support their students to be endowed with team working and social justice-based interaction skills. Furthermore, student teachers collaborate with their supervisors and teacher mentors in self-reflections and exchanges of some valuable ideas.

Goal:

Students have a service mind as well as team working and social justice-based interaction skills.

Approach 3 Cultivate a model teacher's spirituality in student teachers to guide, coach and support students to conduct their lives based on sufficiency and sustainability, with 2 procedures and a goal.

Procedures:

1) Supervisors, teacher mentors and student teachers collaborate in constructing and defining the simulations or role plays which help develop student teachers to be the model teachers holding sufficiency and sustainability, getting supported by peers and their teacher mentors/supervisors to be leaders in any activities and work. Having learned from the simulations/role plays, student teachers can apply these for supporting their students in conducting lives based on sufficiency and sustainability.

2) Supervisors, teacher mentors and student teachers themselves collaborate in advising, monitoring and improving student teachers to be the role models in holding sufficiency and sustainability and to further advise, coach and support their students in conducting lives based on sufficiency and sustainability.

Goal:

Students understand and hold sufficiency and sustainability.

Approach 4 Enhance student teachers' potential to become the model researchers guiding, coaching and endowing students with dialectic critical thinking through proactively practical guidelines, with 2 procedures and a goal.

Procedures:

1) Supervisors, teacher mentors and student teachers collaborate in planning and developing student teachers' potential of being the model researcher-teachers through conducting classroom research, enabling student teachers to coach and support students in living with dialectic critical thinking and creativity through proactively practical guidelines for creating innovations.

2) Supervisors, teacher mentors and student teachers themselves collaborate in advising and monitoring development of students teachers' potential and enhancement of their knowledge and practical experiences so that they become the model researcher-teachers, promoting student teachers to participate in professional trainings/workshops to develop their potential of research conducting while coaching them to be efficient facilitators and supporters guiding their students to conduct lives with dialectic critical thinking and creativity through proactively practical guidelines for creating and developing innovators.

Goal:

Students can wisely apply some proactively practical guidelines to enhance their dialectic critical thinking and creativity.

The results of appropriateness and feasibility evaluation of the drafted approaches to developing future teacher leadership enhancing students' characteristics based on the human value creating global citizenship concept by 16 experts reveal that, overall, the appropriateness is at the highest level ($\bar{x}$=4.66, SD= 0.55), while the feasibility appears at the high level ($\bar{x}$=4.30, SD= 0.96).

Discussion and Conclusion

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From the proposed approaches to developing future teacher leadership to enhance students' characteristics based on the human value creating global citizenship concept, there are some intriguing issues to be discussed as follows.

Approach 1 Develop student teachers' personal growth to be the role models guiding, coaching and supporting students to conduct knowledge and wisdom-based lives and to respect human value in themselves and others for living together happily and harmoniously meaningfully signifies the important role of global citizens who create human value in themselves, conducting lives based on both knowledge and wisdom, which appears the aspect with the highest PNIModified. While considering the desirable state of teacher leadership development, personal growth becomes a critical aspect with the highest mean. This meaningfully reflects the significance of developing some approaches to enhancing global citizenship in new generation people and students who should be equipped with curiosity and inquisitive mind leading them to discover themselves as the individuals with some beliefs, experience and unlimited capacities. Eventually, students will have holistic understanding about themselves, others and the world (Pike, G. & Selby, D., 2000) through self-reflection. This will help motivate students as the individuals willing to take part in any societal changes, while creating engagement and emphasizing awareness of and determination to create a value in themselves (Bourn, D. & Sharma, N., 2008).

Approach 2 Exalt student teachers' leadership competency to be the role models concerning having a service mind, guiding, coaching and equipping students with team working skills and social justice-based interaction capacity reflects modelling, an important aspect of the desirable state of teacher leadership with the highest mean. A model teacher is expected to open their minds to any innovative ideas and/or criticisms. In terms of coaching, he/she should be equipped with a variety of pedagogical skills to motivate students' learning through social media, using interdisciplinary approaches or integrating bodies of knowledge between sciences. This conforms to the theory of a leadership behaviour development framework (Srisa-arn, V., 2020) and a concept of the team working skills focusing on knowledge exchange and knowledge transfer, while having faith in the potential and capacity of oneself (Andrea, B. et al., 2016). Also, it emphasizes the necessity of developing soft skills in parallel with ICT competency and other practical skills (Filipczak, B. et al., 2000). Hence, it is essential to cultivate in student teachers/future teachers some leadership skills and characteristics while working and learning with their students (Salazar, Y.C., 2010).

Approach 3 Cultivate a model teacher's spirituality in student teachers to guide, coach and support students to conduct their lives based on sufficiency and sustainability meaningfully signifies what was emphasized by school administrators and teacher mentors/supervisors who rated holding sufficiency and sustainability as an aspect with the highest level, in terms of the overall desirable state of future teachers' instruction to enhance students' characteristics based on the human value creating global citizenship concept. This also corroborates the result of appropriateness and feasibility of the proposed approaches evaluated by 16 experts. Moreover, this supports some ideas on developing future teacher leadership (Poekert, P.E. et al., 2016), future teacher leadership (Fairman, J.C. & Mackenzie, S.V., 2012 & 2015), the human value creating global citizenship concept (Charoenkul, N. et al., 2019), and the theory of a leadership behaviour development framework focusing on the dimension of value and ideology highlighting the

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common good, having a service mind, as well as holding ethical and moral principles, etc. (Srisa-arn, V., 2020).

Approach 4 Enhance student teachers' potential to become the model researchers guiding, coaching and endowing students with dialectic critical thinking through proactively practical guidelines significantly reflects the necessity that student teachers/future teachers guide and help enhance students' innovation discovery and creating skills, and that they advise students to make a decision and solve any problems and conflicts in a peaceful and creative way. These appear the items of the highest PNIModified in terms of encouraging proactively practical guidelines for enhancing dialectic critical thinking, which falls in the top 3 main aspects with the highest PNIModified . This conforms to the characteristics of new generation teachers who need to become the innovators creating innovations (Mesinsee, S., 2019) and the principles of educational management in the digital age, having ethics to lead knowledge (Sophonpanich, K.., 2020), as well as developing professional or model researchers which is consistent with the theory of a leadership behaviour development framework (Srisa-arn, V., 2020). All of the mentioned theories and concepts are to be applied the key vehicles driving towards student teacher development process with a primary aim to foster the new generation researcher-teachers who need to develop themselves continuously, to keep pace with new technology and innovative bodies of knowledge, and to be capable of applying the research results to improve their instruction to help develop their students in terms of academic achievements, learning skills and life skills that will enable them to survive, to live with others happily and harmoniously, and finally, to create and sustain a peaceful society.

Conclusion and Recommendations

From the research results, it can be concluded that the approaches to developing leadership of student teachers who tend to become the real teachers in the not too distant future focus on personal growth and growth as a leader. Overall, both are the critical aspects with the highest means in the desirable state of future teacher leadership development. To effectively develop students' characteristics based on the human value creating global citizenship concept, it requires student teachers' capability and skills, including the roles of school administrators, teacher mentors/supervisors in supporting and guiding student teachers to efficiently manage their instructional activities and to effectively help develop students, endowing them with the desirable characteristics of global citizens who could conduct their lives based on both knowledge and wisdom, and who respect human value in themselves and others. These are, overall, the significant aspects with the highest PNIModified .

Recommendations for applying the research results:

1. Universities or higher education institutions, including schools and faculties in charge of producing teachers and educational personnel and all the parties concerned can apply the research results as the lessons learned and guidelines for conducting future research on the possibility of implementing the proposed approaches to developing future teacher leadership to enhance students' characteristics based on the human value creating global citizenship concept in their units/organizations and in other kinds of educational institutions with the similar context, owing to the research result which reveals that, overall, the desirable state of each aspect falls on the highest level.

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2. Administrators and personnel in charge of managing curriculum relating to producing teachers, including teacher mentors and people concerned can apply the proposed approaches to developing future teacher leadership as a database for improving and upgrading the quality of educational curriculum and programs in order to enhance the personal growth and leadership of student teachers or those who tend to be in the teaching profession, so that they could become a driving force in improving students' desirable characteristics based on the human value creating global citizenship concept, due to the research result which turns out that, overall, these 2 aspects of the desirable state of developing future teacher leadership are at the highest level.

3. Student teachers from any educational institutions could apply the proposed approaches to developing future teacher leadership as the guidelines for developing their personal growth continuously to become teacher leaders who effectively help enhance students' characteristics of human value creating global citizens and who efficiently respond to a variety of student needs, owing to the research result which reveals that, overall, personal growth becomes the aspect with the highest mean, in terms of the desirable state of developing future teacher leadership.

Recommendations for further studies:

From the above research results and discussions, there are some recommendations for further studies.

1. A study on a model of developing future teachers of an educational institution, especially in the dimensions of personal growth and leadership, in response to the global contexts and societies in the 21st century should be conducted to help create the new generation teachers and teacher leaders with a growth mindset and a strong determination who can adapt themselves to any changes and develop their professional skills to meet a global standard.

2. There should be a study on the strategies for developing future teachers' competencies to respond to the needs of an educational ecology in the new era, in terms of various aspects, such as a knowledge and wisdom-based leader competency which will help elevate one's honesty and social responsibility, a networking competency, a dialectic critical thinking competency, a creative and innovative thinking competency, a problem-solving competency, transformational management competency, including emotional intelligence, which will significantly help enhance both future teachers' and students' desirable characteristics of respecting human value in themselves and others.

3. An exploration on an innovation for developing future teachers to be equipped with some necessary soft skills required for the pedagogical tasks, as well as some social skills for living together with others in happiness and harmony, should also be carried out to serve as a pathway towards a peaceful society.

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The development of Cultural Tourism Route in 3 Southern Borders of Thailand to Support Muslim Travelers

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Abstract— The objectives of this study were to study 1. The needs of cultural tourism in 3 southern borders of Thailand 2. To create cultural tourism route in 3 southern borders of Thailand to support Muslim Indonesian Tourist 3. To evaluate Muslim Indonesian Tourist's satisfaction of cultural tourism route in 3 southern borders of Thailand. Using Semi-structure interview a group of 6 people to find the need of traveling. Selected the cultural tourist attractions with the potential of Muslim Indonesian tourist's need for establishing cultural tourism route in 3 southern borders of Thailand. Tourism activities on this route has been tested to analyze and evaluate the potential of the route. Measured tourists' satisfaction by in-depth interview. The study result showed that most of Muslim Indonesian tourists wanted to visit 3 southern borders of Thailand for cultural reasons due to halal approachability, multi-cultural reasons, Culture and historical linked of their own and want to learn about Thai Muslim way of life. The formation of tourism route conducted by selecting cultural tourist attractions with the potential of Muslim Indonesian tourist's need these include: religious place, ancient remains, local market, local museum and religious institution (Pondak). The evaluation of satisfaction showed that all 10 tourists satisfied with the route and suggested that primary facilities should be developed. Cultural tourism route should be systematically publicized. The result of this study will be the key information for all nations to use in their marketing to attract Muslim Indonesian and Muslim travelers around the world..

Index Terms— *Cultural Tourism Route, Three Southern Borders of Thailand, Muslim Travelers*

I. INTRODUCTION

Muslim tourism market is a high potential and fast-growing market. Also, there is enormous money to generate in the tourism industry. It is expected that by 2025 there will be 200 million Muslim tourists which mainly choose to travel within the Islamic Cooperation Organization (IOC) countries only. Thailand is considered as the second choice after Singapore. (GMTI, 2017). The important factor that will attract Muslim tourists for non-Islamic Cooperation Organization Countries (Non-OIC) is creating environment and friendly atmosphere for Muslims (Arabnews, 2016). Moreover, Wauttichai Bhutae (2017) Pointed that ASEAN Muslim tourists mainly travel to Thailand for the purpose of relaxation because Thailand has many tourist attractions with great tourism potential that meet the requirement of Muslims, such as Halal food and Prayer room according to the Islamic requirement.

It is predicted that in 2030 the Muslim population will increase and by 2050 the Muslim population will be 3 billion which is one third of the world populations. It is also predicted that world tourism market will generate up to $3 billion in 2026 (Center of Tourism Research and Development).A report from Travel company the Global Muslim Travel index (GMTI,2015) mentioned that 50 percent of Muslim tourists travel as a family, travel for business, health and relaxation, knowledge acquisition and learn about different cultures.

As mentioned earlier Muslim tourism market is a fast-growing market with enormous money to generate in the tourism industry. high spending markets open up tourism business opportunity in both direct and indirect. Hence, it is considered as interesting market to keep an eye on, this is the matter of many countries to try to focus on in order to meet the need of this market. The report by The Mastercard-Crescent Rating Global Muslim Travel Index 2019 (GMTI) on the growth of Halal tourism, showed that Indonesia is on the top of the list in term of having the most Muslim travelers alongside its neighboring country Malaysia, which both countries are in the Islamic Cooperation Organization (IOC). Thailand is on the second after Singapore compared to ten countries outside the Islamic Cooperation Organization (IOC) (GMTI,2019).

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Having said that top ten tourist visited Thailand does not consist Indonesian (Ministry of Sport and Tourism). Therefore, it is crucial to study the needs of Indonesian Tourist in Thailand and to design tourism route that suites the need of Indonesian Tourists. This is because it can encourage more tourist from Indonesia to Thailand.

II. RESEARCH OBJECTIVES

1. To study the needs of cultural tourism in the three southern border provinces of the Indonesian tourists.

2. To generate the cultural tourism routes in the three southern border provinces to support the Indonesian tourists.

3. To study the satisfaction of the Indonesian tourists towards the cultural tourism routes in the three southern border provinces.

III. RESEARCH METHODS

This research used the qualitative research method by analyzing documents, interview, in-depth interview, non-participant observation, and in-depth data collection. The purpose is to study tourism needs by interviewing a sample group of 6 persons. The interview form was a Semi-Structured Interview. The selected cultural tourist attractions were from the potential sites concordant with the needs of Indonesia's tourists. Moreover, there was coordination through the responsible persons in the communities where the cultural tourist attractions were located. They were recruited to support the tourists for making the cultural tourism routes in the three southern border provinces. The tourism activities were tested along the cultural tourism routes in the three southern border provinces. The objective was to analyze and evaluate the routes potentials, measure the satisfaction of the tourists by In-depth Interview, and behaviors observed during the tourism services.

IV. RESULTS

The research result of cultural tourism needs in the three southern border provinces of Indonesian tourists revealed as follows:

The purposes of traveling to the three southern border provinces were to go on a field trip, seeking knowledge, having the local food, and buying souvenirs from Pattani. For the residence, the Indonesia tourists needed the convenient 3 star hotels, located in the city. For the expenses, they need to pay for not over 2500-3500 baht per person per day.

According to the travel motivations in the three southern border provinces, the areas were different from other places in Thailand. The cultures here are similar to the ones in Indonesia. There have been histories connecting to Indonesia for a long time. Besides, the Malayu language used in these areas is almost the same as the Indonesian language.

Furthermore, it is worth to pay for traveling to this country. For the styles of tourist attractions, there were various forms as follows:

1. Historical attractions, ancient remains, and ancient cities;

2. The tourist attractions which indicate the history of the Malaya government for the Langkasuka Kingdom in the past;

3. The tourists need to see traces of the spreading system on Islamic religion in the Langkasuka Kingdom period that is connected to the Malayu Aceh, Indonesia;

4. The tourists need to visit the educational institute in the type of traditional Pono, which has still maintained the duty of producing the Islamic philosopher (Ulama) until the present time;

5. Cultural tourist attractions which have the inheritance of local wisdom which has been maintained, and the local flea markets, and community livelihood;

6. The tourists need to have local food in the form of Malayu and Arab cultures;

7. The tourists need to visit the various traditions and cultures mixed with Thai and Malayu.

The result of generating the cultural tourism routes in the three southern border provinces to support the Indonesian tourists indicated as follows:

According to the selection of cultural tourist attractions which have the potentiality concordant with the needs of Indonesian tourists, the researchers generated the cultural tourism routes in the three southern border provinces to support the Indonesian tourists by selecting the tourist attractions as follows:

1. Paya Indira Cemetery or Sultan Ismail Syah Cemetery is located at Ban Pare, Barahom Sub-district, Mueang Pattani District. This is the cemetery of the first Pattani governor, a Muslim upholding Islamic religion. Paya Indira was King Sri Wang Sa's son of the Gotham Ligai City (an ancient city of Yarang today). When the new Pattani City was established at Kreuse Bana, Paya Indira was appointed as Pattani Governor during B.E. 2043-2073. He founded Pattani City as the Nakhon Pattani Darus Salam and developed this city to be forceful;

2. Pattani Provincial Central Mosque the tourist attractions of Pattani was designed by beautiful and outstanding architectures. Furthermore, it is a religious place considered one of the most important centers for the people who uphold Islam as their religion in the southern region. The external shape of the Mosque got the model from the Taj Mahal. Anyone who has arrived in Pattani has to see the arts and beauty of the building features. Also, this

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Mosque is admired by TripAdvisor as the most beautiful Mosque in Thailand

3. Krue Se Mosque or Sultan Muzaffar Shah Mosque It is an old mosque more than 700 years old in Pattani Province. It is assumed the Mosque was contemporarily established in the 22nd Century of the Buddhist Era for the Ayutthaya Kingdom. Moreover, this Mosque can be called "Pintu Kerban Mosque", called by its doors' shape. The door appearance is a sharp bend as European Gothic, mixed with the architecture of the Middle East Region;

4. Pondok Dalor is an educational institute in a Pondok type, established in B.E. 2476, considered an old Pondok institute in Thailand. The purpose of this institute is to perform the duty as an educational center for communities. However, the curriculum is specific and focusing on Islamic Religion only. Pono is regarded as a learning resource about the Islamic religion, which is ancient in South-east Asia. Not educational provision, but also providing religion, language, culture, and customs of Muslims. Are crucial roles for this institute. It can be said that Pondok possesses the position of an Islamic educational institute which has stimulated the livelihood of Islam from waking up until going to bed, due to encourage the students to live in the society called 'Muslim Society' (Maimanee Raksa Promrach, 2016;

5. Ta Lo Ha Lor Community, Raman District, Yala Province. It is a community that has dagger craftsmen inherited from the past to the present time. "Raman Dagger" has a long history. The origin of the Raman Dagger started around 200-300 years ago. Raman Governor desired to possess the dagger as a respectable weapon, so he invited the craftsmen from Indonesia to make daggers at Raman City. Now, there is "Khun Tee Pa Lee Ah Ra Bu" to be the person who inherits the blood of Raman Dagger Craftsmen. He is concerned as a local wisdom teacher who is skilled in the ancient dagger. He transfers his knowledge base on the dagger to the youths who are new generations to further inherit this knowledge.

6. Al-Quran learning Center: Manuscripts the ancient Qurans which are exhibited between 150 – 1,112 years old. The features consist of the covers made of leathers whereas their inside part was made of paper and barks. The letters were written in a Yawee (Malayu) and ancient Arabic language, with black ink. Some pages were decorated with five colors writing with different styles. Some designs were decorated as Chinese arts mixed with Arabic arts, including the decorated gold leaf. The sizes were from small to huge ones. These Qurans have been repaired and treated carefully from foreign countries. There have been numerous visitors interested in, especially the group of Muslim countries from both the Middle East and Asia regions. Besides, there have been students who are interested in

history usually contact the Museum to ask for the visit and learning history in this Museum;

7. Khun Laharn Local Museum; is located at Ban Ka Deng, Laharn Sub-district, Narathiwat Province. The person who established this Museum is Mr. Rassamin Nititham. He inherits the intention of his ancestors to maintain the arts, local wisdom, and cultural learning resources to the next generations. The things which are shown consist of collections, donated stuff, and things bought by the Museum. The Museum cooperates with the folklores. It has got the construction of two story buildings. The downstairs shows the stories of backgrounds of this locality since the pre-history until the Langkasuka period, or during the time of Pattani Darussalam, including the time of Khun La Han and various crucial persons in the community;

8. Talo Mano Mosque (300 years Mosque) is an old mosque and has a long history. The Mosque was constructed in B.E. 2167 (1624). All its features were built from the Iron Wood. Wooden bolt was used as nails or screws. Its shape is in a Thai local building style, applied with the Chinese and Malayu arts. The most outstanding part of this building is over the roof, which has the base to support the gable as another floor. The Azan Tower was built as a Chinese building on the roof. A single piece of wood was used to make walls, the windows were punctuated as a ventilator and carved in leaves and flowers patterns mixed with the Chinese style.

9. Community market, and the flea markets in Pattani City;

10. Local food restaurants in Pattani Province;

11. CS PATTANI HOTEL; is a four stars level hotel located in Pattani center. This hotel is clean, convenient, and safe.

The research result of the satisfaction for Indonesian tourists towards the cultural tourism routes in the three southern border provinces found that:

The tourists' satisfaction was from the In-depth interview and behavior observed during the tourism service provided. The result revealed that all of the ten tourists were satisfied with the tourism routes. They gave some recommendations that can be summarized as follows:

Some unique areas were artistic and impressive such as a mosque that had the building style perfectly ancient and mixed. Moreover, tourism access was convenient. Shops were ready to give services, the community was safe, and the tourist attractions were connected with the communities. However, some tourist attractions had primary facilities, some had better management systems in terms of tourism activities and facilities.

For the suggestion, the tourist attractions should be developed their primary facilities to support the tourists both at present and in the future comfortably. Furthermore, the constructions should be treated nicely, and the entire sceneries also should be improved consistently. However, there has not been any tourist service point clearly. Moreover, some cultural tourism routes have not been promoted. On the other hand, some paths should be organized more systematically, and some areas should be repaired and renovated.

V. DISCUSSIONS

According to the study of the cultural tourism needs in the three southern border provinces of the Indonesian tourists, most of the tourists needed to visit the three southern border provinces because halal food was generally available. This opinion is concordant with the research of Wuttichai Puteh. (2560) about the tourism behaviors in Thailand of the ASEAN Muslims, which was found that most of them preferred to use leisure time in Thailand because there were several potential tourist attractions, including the readiness of religious places for perform a ritual prayer of Salat, and halal food service. Furthermore, the tourists realized the variety of cultures. Some cultures had a historical connection with their country. Therefore, they desired to travel to learn the way of the Muslim community. It conforms to the tourism company's report: the Global Muslim Travel Index (GMTI, 2015), which indicated that 50% of Muslim tourists preferred to travel to learn about other cultures. Furthermore, they traveled to visit their relatives and friends. Besides, the Malayu language made them easy to communicate with people there, including the worth of money

VI. RECOMMENDATIONS

The recommendations got from the research entitled Development of Cultural Tourism Routes in Three Southern Borders of Thailand to Support Muslim Travelers are as follows:

For tourism enhancement in every country to reach the potentiality for supporting the Indonesian tourists: it should study the tourism behaviors of the Indonesian tourists in-depth. Besides, the sample group should come from all regions in Indonesia because each location has different cultures and livelihoods. The recieved information can be some further guidelines for tourism service.

CONCLUSION

The study on the development of Cultural Tourism Routes in three Southern Borders of Thailand to Support Muslim Travelers which focus on Indonesian Muslim

tourists showed that, most of Indonesian Muslim tourists wanted to travel to three Southern Borders of Thailand and are interested in cultural tourism. This is because they can find halal food easily and its culture connects to their own country. Also they wanted to learn the way of life of Thai Muslim.

The result from the interview on the needs of traveling to the cultural tourism route in 3 Southern Borders of Thailand to support Indonesian tourists. The study showed that tourists wanted to travel to cultural attractions and wanted to see Malay culture that related to Langkasuka Kingdom which was an ancient Malay Kingdom. Moreover, they want to visit and learn about Pondok (Islamic Religious School) of the southern Thailand which has its renown on being Southeast Asia's oldest educational establishment

The results of measuring the satisfaction of tourists by interview with using motivational technique in order to get the truth answer. Tourists were also observed behavior during receiving the services. It showed that all 10 tourists were very satisfied with cultural tourism route in three Southern Borders of Thailand.

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Participatory Budgeting: A Case Study of Provincial Administrative Organization

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Abstract— The objective of this paper is to study the budgeting process of the Provincial Administrative Organizations in Thailand and to examine the limits to public participation in the budgeting process. Furthermore, the paper offers recommendations on how to increase for public participation in the budgeting process. The study uses qualitative methods, studying documents related to budgeting process such as laws and regulations, in addition to using in-depth interviews with administrators and staff at Provincial Administrative Organizations. The research shows that the budgeting process of Provincial Administrative Organizations limits public participation. Participation is limited to local development plan making, which only acts as a guideline, and is nonbinding. The final decision makers the annual budgets are the administrators of the provincial administrative organizations and the provincial administrative organizations council. Therefore, to reduce the limits to public participation in budgetary decisions, the paper recommends that the central government enacts legislation that creates mechanisms that allows people to participate in budget allocation decisions. In this regard, the nature or type of operation may that a form suitable to each area. Examples include direct decisions about public matters or political issues or in the form of a third-party intermediary intermediation.

Index Terms— *Participatory Budgeting, Local Government, Province Administrative Organization*

I. INTRODUCTION

Limited resources can be optimized and most beneficial for policy driving. Budget is a vital propeller for effective resource allocation and utilization that also needs public participation as a key to achieve. People are stakeholders knowing what are crucial and needed. Their engagement in the decision making process in resource utilization, this would contribute the maximum benefit. Studies report the scarcity of financial resources that concur with the lack of people's participation in budgeting process. According to Justice and Dülger[1], it is barely evident to see people playing a role in the state's budgeting procedures.

In Thailand, localities have two concurrent budgeting types: Function-based budgeting and; Area-based budgeting. The function-based is the allocation to ministries in response to national policies and the country's development. The second type allocates the budget to localities based upon their needs, problems and developments. The second budgeting requires public participation during budget planning, allocating and auditing in order that the allocated budget would meet local objectives.

Budget is transferred from the central to regional and local governments. Nonetheless, it is true that local budgeting procedures do not empower people's participation, no matter it is problem raising, decision making, clarification and inspection[2]. Participatory budgeting is the channel for people's participation in budget allocation as introduced by the Local Administrative Reformation Committee, National Reform Council[2]. Peoples' voices can be heard through the participatory approach, which is a direct democracy that ensures people's involvement in budget utilization. This approach is a means to equal and effective budget utilization while echoing people's genuine power.

This study explores the budgeting procedure and people's participation in budgeting. The Provincial Administrative Organization (PAO) is the case study owing to its duty to provide public services over the entire provincial area. They earn annual budgets much higher than local administrative organizations (LAOs) in the lower tier. All 76 provincial administrative organizations in the Upper Tier follow the same budgeting procedures by law.

II. RESEARCH OBJECTIVES

The objectives of this research article was to explore the budgeting procedure and people's participation in budgeting, in case of Provincial Administrative Organization(PAO)

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III. RESEARCH METHODS

Research Design

There are two major methods in this qualitative study. The documentary research makes use of relevant documents, for example laws and regulations. The in-depth interview has interviewees who are executives and staff from PAOs, namely Director of Finance Division, Chief Administrator of PAO, Director of Planning and Budgeting Division and Chief of Budgeting Unit. Data collection was made in 2019 Fiscal Year.

Conceptual framework

As part of direct democracy, participatory budgeting is a method in which people can make decision on how to use the budget. People learn about the government's performance, consideration, discussion and power in public resource allocation[3]. Participatory budgeting is a decision making process, beginning with negotiation and careful review so as to allocate or distribute public resources. People directly involve in decision-making process on how to utilize such resources[4]. This budgeting contains five steps. Firstly, it needs to design the process. Secondly, it is brainstorming ideas from local people on what they need or which issues to be fixed. Thirdly, project proposals are developed and prioritized. Fourthly, it is voting. People select their most wanted projects to for budget support. The final is budget allocation to the highest voted projects. Participation is an indication of effective resource use, transparency and good governance. Expectedly, this budgeting form would diminish the state's low performance, patronage relations and corruption.

IV. RESULTS

This part presents two sections: (1) Provincial administrative organization's budgeting procedure and; (2) Provincial administrative organization's budgeting procedure and public participation.

1. Provincial administrative organization's budgeting procedure

Laws and regulations regarding PAO's budgeting mentioned here are: (1) Plan and Procedure for Decentralization of the Local Administrative Organization Act, B.E. 2542; (2) Provincial Administrative Organization Act, B.E. 2540 and the Amendment; (3) Ministry of Interior Regulation on Local Government Budgeting, B.E. 2541, the Second Amendment, B.E. 2543 and the Third Amendment, B.E. 2543 and; (4) Ministry of Interior Regulation on Formulation of Local Development Plan of Local Administrative Organization, B.E. 2548 and the

Amendment. The budgeting procedure of PAO begins with formulation of development plan of LAOs, then drafting the provisions, approval and announcement respectively.

1.1 Formulating development plan of local administrative organizations

The development plan controls the direction the development is going. However, the plan must be accompanied with budgeting. The local government organization must use the local development plan in connection with budgeting by using the local development plan as a guideline for budgeting. When formulating the plan, it requires an authority who formulates the plan and projects to be added into the plan.

1) Establishing authorized bodies to formulate the development plan

PAO establishes the authorities taking charge of formulating the development plan. They are committees on local development committee and local development promotion.

The Committee on Local Development Plan Promotion is composed of: Chief Administrator of PAO as Chair; Chief of Administrative Unit of PAO; Three representatives from local communities; Chief of Administrative Unit responsible for planning as Secretary and; Policy and Plan Analyst as Assistant to the Secretary. They draft the local development plan as required by the Local Development Committee and submit the draft to the Committee.

The Local Development Committee consists of: Chief Executive of PAO as Chair: Every Deputy Chief Executive of PAOs; Three members of Local Council selected by Council; Three experts; A minimum of three representatives from the government sector or state enterprises; Three-six representatives from local communities; Chief Administrator of PAO as Secretary and; Chief of Administrative Unit responsible for planning as Secretary. The following responsibilities belong to this Committee:

- Planning local development on the basis of: (1) Functions; (2) Mission transfer according to the Determining Plans and Process of Decentralization to Local Administrative Organization Act; (3) Development strategy for the country, province group and provinces; (4) Guideline to LAO development in the province; (5) Executive's policies and; (6) Community plan.
- Drafting and providing recommendations on the development plan and solutions to problems
- Reviewing the drafted plan and its implementation
- Approving the drafted provisions
- Monitoring and evaluating the development plan
- Appointing advisors or a working group as appropriate

2) Developing projects for the local development plan

In the Ministry of Interior Regulation on Formulation of Local Development Plan of Local Administrative Organization, B.E. 2548 and the Second Amendment, B.E. 2559, Clause 5 (2) states that "In order to formulate the draft of local development plan, the Provincial Administrative Organization, municipalities, Pattaya City Administrative Organization and other local administrative organizations by law shall include problems from the development plans of villages or communities that exceed their capacity in this development plan. If these plans exceed the capacity of municipalities, Pattaya City Administrative Organization and other local administrative organizations by law, they shall be submitted to the Provincial Administrative Organization to include in the Organization's development plan according to the designated function."

Projects included in the PAO's development plan come from: PAO's data collection and local community meetings; Requests from government organizations for budget support and; Coordination with development plans of local administrative organizations in the province.

1. Data collection and local community meetings

PAO can initiate projects, using data and information from local community meetings. They are forums for local people within LAOs' jurisdiction to share ideas and development issues, make collective decision and take action on issues in accordance with the designated functions of LAOs (Ministry of Interior Regulation on Formulation of Development Plan of Local Administrative Organization, B.E. 2548).

According to the Ministry of Interior, Urgent Note No. 0810/2/0600 dated January 29, 2016, local community meetings organized by PAO may be varied. If PAO organizes local community meetings within jurisdiction of sub-district administrative organizations (SAOs), sub-district municipalities, city municipalities and town municipalities, such meetings shall be organized the same as these organizations do. As for local community meetings at district level, they are meetings of individuals or households in all villages, communities and sub-districts within the district's jurisdiction. At provincial level, local community meetings gather individuals or households in all villages, communities, sub-districts and districts within the province's jurisdiction. Local community meetings at district level must take place prior to the provincial meetings. However, if PAO needs further detailed and clarified information concerning development plans, it may organize meetings at village, community and sub-district levels as appropriate. With regard to the public participation in meetings at district and provincial levels, their proportion is determined by Chief Executive of PAO in collaboration with every Deputy Chief Executive of

PAOs, Chief Administrator of PAO and Chief of Administrative Unit of PAO equivalent to Chief of Office, Director of Division and Deputy Chief Administrator of PAO (if any).

The obtained information helps the Committee on Local Development Plan Promotion to analyze the feasibility and legal matters. Then, the Division of Public Works conducts the survey and nails down the coordinates and subsequent quotes of the projects. These detailed projects will be included in PAO's development plan.

2. Requests from government organizations for budget support

As in Ministry of Interior Regulation on Grant for Local Administrative Organization, B.E. 2559, local administrative organizations shall prepare grant budget as requested by government organizations so as to perform designated functions.

3. Coordination with development plans of local administrative organizations in the province

3.1 Coordinating Committee on Local Development Plan at District Level

The Committee has the District Chief as advisor. It is chaired by the executive elected by the Committee. The composition of the Committee is as follows: Every local executive of each district; Members of Provincial Administrative Organization Council from every district; Chief of District Office; Every Chief Administrator of LAOs from every district; One civil servant from PAO assigned by Chief Executive of PAO; One Deputy District Chief assigned by District Chief; Chief Administrator of LAO as Member and Secretary selected by Chair of the Coordinating Committee and; Two civil servants or municipal officers or sub-district officers as Assistant to Secretary selected by the Secretary.

The Committee performs the following duties: (1) Submitting opinions and suggestions on local development plans of every LAO. The Committee ensures these plans' compliance with the development strategy of LAOs in the province. Projects beyond the capacity of municipalities and sub-district administrative organizations (SAOs) are in the Committee's consideration; (2) Reviewing development plans and projects submitted by LAOs and their compliance with the development strategy of LAOs in the province and submitting comments to the Coordinating Committee at provincial level and; (3) Considering projects beyond the capacity of municipalities and SAOs that comply with the development strategy of LAOs in the province.

Upon receipt of detailed development projects from municipalities and SAOs, the Coordinating Committee at district level carries out a review of the projects and prioritize them. There are criteria for the Committee's review: (1) Development project within jurisdiction of at least two LAOs and beneficial to both as agreed; (2)

Large-scale development project with huge budget, beyond the capacity of LAOs and impacts on the province's development; (3) Development project that requires highly advanced technology or experts as supervisors and advisors; (4) Development project with potential large-scale impacts on natural resources, environment, social-geography, culture, tradition and lifestyle and such impacts go beyond jurisdiction of LAOs; (5). Prevention of massive disasters such as flood, storm, wildfire, and such like and requiring joint efforts among LAOs. These also cover man-made threats to life and property, insurgency, deforestation, environmental destruction and drug-induced incidents; (6) Actions under assigned functions by law and; (7) Other cases as necessary.

Following the review and prioritization of proposed projects, the Coordinating Committee at District Level submits the list of projects to the Coordinating Committee at Provincial Level.

3.2 Coordinating Committee on Local Development Plan at Provincial Level

The Committee at provincial level is chaired by Chief Executive of PAO. Committee members are: Deputy Chief Executive of PAO responsible for development planning; Chair of Coordinating Committee at District Level of all districts; Secretary of Coordinating Committee at District Level of all districts; Chief of Provincial Office for Local Administration; Chief of Provincial Office; Chief of Provincial Public Works and Town Planning; Members (not over five persons) of PAO Council elected among themselves; Chairman or representative of Provincial Chamber of Commerce; Chair or representative of Federation of Thai Industries in the province; Chief Administrator of PAO; Chief of Provincial Development Strategy Unit, Provincial Office; Chief of Local Administration Unit, Provincial Office for Local Administration; Civil servants from PAO or municipal officers or sub-district officers (not over three persons) responsible for local development plan as Assistant to Secretary.

This Committee is assigned to: (1) Set the coordinating framework grounded on the development strategy of LAOs in the province, the provincial and national development strategy and submit the framework to LAOs and the Coordinating Committee at District Level; (2) Provide opinions and recommendations on each LAO's development plans about their accordance with the development strategy of LAOs in the province. This Committee counts in the opinions of the Coordinating Committee at District Level; (3) Approve LAOs' development projects in the province as in the list of LAOs' development projects. PAO then includes the listed projects in PAO's development plan; (4) Inspect development projects of municipalities and SAOs in order to avoid overlaps with projects in PAO's development plan and; (5) Consider projects exceeding the capacity of PAO or important projects beyond PAO's designated functions. The projects should go with the development strategy of LAOs in the province and be in the "List of projects for budget support from the Integrated Provincial Executive Committee". The list is similar to LAO's list of coordinating projects.

1.2 Drafting the local development plan

The Committee on Local Development Plan Promotion collects development issues and projects of municipalities and SAOs reviewed by the Provincial Coordinating Committee. In addition, the Promotion Committee also analyzes information from local community meetings and projects, then drafts PAO's local development plan and submits to the Local Development Committee. The draft is prescribed in Clause 10 in Ministry of Interior Regulation on Formulation of Local Development Plan, B.E. 2548 and the Amendment. It says the provincial administrative organization, municipalities, sub-district administrative organizations, Pattaya City and other local administrative organizations provided by law shall include issues concerning villages' or communities' development plans that exceed their capacity in the development plan. If they still exceed the capacity of municipalities, sub-district administrative organizations, Pattaya City and other local administrative organizations provided by law, these issues shall be submitted to the provincial administrative organization to include in its development plan according to the designed functions.

Project review uses these criteria: (1) Large-scale development project that exceeds the capacity of LAOs in the province; (2) Development project involving in multiple LAOs in the province and yielding benefits to the province. This excludes the projects that can be operated by LAOs in the province and; (3) Project in continuation or contributing benefits to more than one LAO (Announcement of Committee on Decentralization to Local Administrative Organization, dated August 13, 2003, on power and duties of the Provincial Administrative Organization to provide public services).

After completing the drafted development plan, the Local Development Committee undertakes the review of the draft and submits to local executives. The Committee uses these criteria: (1) Functions; (2) Transfer mission; (3) Development strategy of the country, province group and provinces; (4) Policy framework regarding development of LAOs in the province; (5) Policies of local executives and; (6) Community plan. Following the approval by the Committee, the local development plan is officially announced and added to the E-plan for budgeting later on.
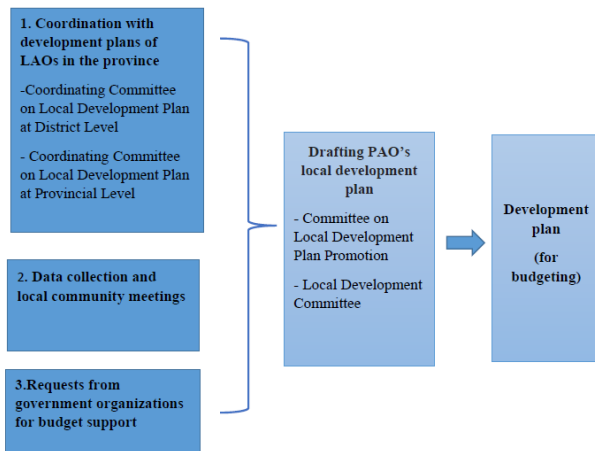
Fig.1 Step to formulate the local development plan of PAO and people's participation

1.3 Budgeting of Provincial Administrative Organization

In the Ministerial Regulation on Local Government Budgeting, B.E. 2541, and the Amendment, Chapter 3 identifies the budgetary procedures.

"Clause 22 Provincial Administrative Organization shall employ its development plan as a guideline to budgeting. Director of the organization shall prepare the estimated revenue and expenditure. Chief of Finance Division shall gather financial reports and statistics from all units in order to calculate the budget and submit to the budget officer.

Clause 23 The budget officer shall initially examine, analyze and revise the budget and submit to the local executives.

Upon the local executives' approval of budgeting for the annual budget, the budget officer shall gather and draft the expenditure budget and resubmit to the local executives in order that the executives can submit to the Local Council by August 15.

Clause 24 In case the local executives agree not to submit the drafted annual expenditure budget to the Local Council within the prescribed time, the local executives shall submit to the Local Council for approval and report to the Governor. As to sub-district administrative organizations, they shall report to the District Chief or Deputy District Chief who is the Chief of Minor District.

Clause 25 The Local Council's approval to the drafted expenditure budget and the authorized person's approval to the drafted expenditure budget shall be in accordance with law, regulation and principle of each type of local administrative organization".

The detailed budgeting of concerned parties to the procedure for drafting the annual expenditure budget and budget approval is the internal system of PAO.

1. Drafting the provisions of annual expenditure budget

In the drafting process (Figure 2), there are concerned authorities, namely, Chief Executive of PAO, Chief Administrator of PAO, government organizations including units, divisions and bureaus under PAO.
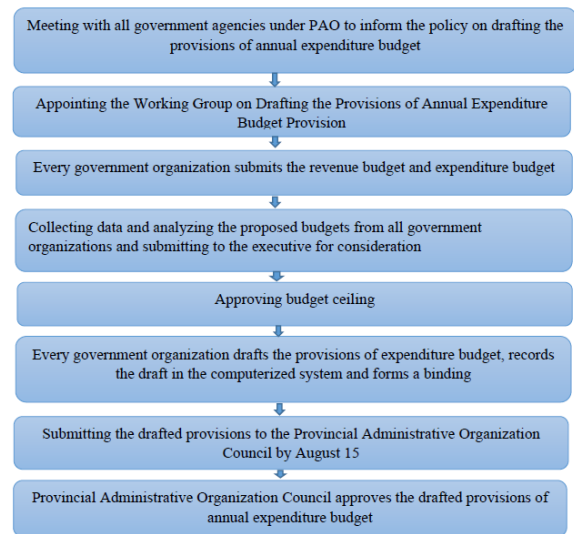
Fig. 2 Steps to draft the provisions of annual expenditure budget

2. Budget approval

Upon completion of the drafted provisions, they are submitted to the Provincial Administrative Organization Council for approval. Public participation is absent in this process, but executives and council members. This study finds that each locality adopts different criteria to allocate or determine the budget[5][6]. They are: (1) Prioritization given to the projects with urgency and potential damages to large population if not being implemented. Thus, these projects are the first priority; (2) Budget allocation based on conditions, necessities, size and population density of localities; (3) Proportion of council is the basis. This means the locality where many council members are from obtains the considerable budget allocation and; (4) Development strategy of PAO, in economics, social and other aspects, matters to budget allocation. The project that aligns with the development plan would receive budget allocation. As for localities without projects that do not respond to the strategies, they are likely to obtain small budgets.

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2.Budget procedure of Provincial Administrative Organization and people's participation

Participatory budgeting is a tool contributing towards effectiveness of budgeting and reflecting good governance. This budgeting opens for the public to determine whether their localities should put the investment on something. Through this channel, people participate in resource allocation, public policy prioritization and inspection of public expenditure. People's watch influences the concrete implementation by local authorities. Unlike the conservative budgeting, authorities have the final word on how to spend the budget and on what. There are interesting points found in this study.

1. Only the initial stage of formulating the local development plan allows public participation. It is impossible for the public to witness PAO's preparation for the provisions of the expenditure budget.

2. The proportion of public participation in local community meetings is on the decline. The Ministry of Interior Regulation on the Formulation of Development Plan of Local Administrative Organization, B.E. 2548 prescribes the form of local community meeting aimed at formulating the local development plan. At district and provincial levels, the meeting must achieve at least 60 percent of public participation. The first meeting permits public participation of less than 60 percent. In the next meetings, they may decide the proportion, but not less than 20 percent, suitable for the locality's context.

The above proportion becomes lower according to Ministry of Interior Note (Urgent) No. 0810.3/6247 dated November 3, 2017. It prescribes that: (1) The local community/village meeting shall allow public participation. In case the public participation is less than 20 percent, the Local Administrative Organization shall hold the local community meeting if public participation is more than 5 percent and; (2) The local community meeting at sub-district level shall be held. In case the public participation is less than 20 percent, the Local Administrative Organization shall hold the meeting if the public participation is more than 3 percent.

3. Lack of financial support for people to participate in drafting the local development plan. Ministry of Interior Regulation on Formulation of Development Plan of Local Administrative Organization, B.E. 2548, prescribes appointment of three committees, namely Committee on Local Development Plan Promotion, Local Development Committee and Committee on Monitoring and Evaluation of Development Plan. Each committee is required to have public participation. Therefore, the Committee on Local Development Plan Promotion has three selected representatives from the public. The Local Development Committee has three to six representatives selected from the public and the last committee has two representatives selected from the public.

Yet, public participation is slightly seen in meetings including committees' meetings, development plan meetings and even in local community meetings where public representatives are selected. It is mainly due to transportation cost. Some participants pay nearly 200 baht for one round trip to the meeting[7]. This cost is not written in the Ministry of Interior Regulation on the Formulation of Development Plan of Local Administrative Organization, B.E. 2548 and so as in the Amendment version. None of them mentions about meeting allowance, honorarium and transportation allowance for the representative from the public.

4. There is no public participation in budgeting procedures as the major responsibility in preparing the provisions for the annual expenditure budget belongs to staff and government units of LAOs. Then in the budget approval process, it is the Provincial Administrative Organization Council who approves the budget. Despite the Council represents local people, it does not give room for people's vote for their preferred projects. Because of these facts, projects under PAOs are decided and approved by PAOs

.

CONCLUSION

People can participate in budgeting process, but formulating local development plans only. They are barred from other budgeting procedures including determining the provisions for the expenditure budget, prioritizing and selecting projects. In all local development plans, they put the budget, goals and outputs. These plans would not be feasible without budgeting procedures. Drafting the provisions of expenditure budget is the procedure that determines the plans' feasibility and budget allocation. In this budgeting procedure, the decision makers are PAOs' executives and the Provincial Administrative Organization Council.

If people are to participate in budget decision-making, there needs to have the policy shift at national level. Hence, if the relevant laws provide that participatory budgeting shall be compulsory, people can participate in decision making. Experiences in overseas can help with designing the appropriate budgeting pattern to Thai contexts. In Ichikawa, Japan, the budget is allocated to non-profited projects. It is the one-percent allocation from residents' income taxes. These projects are voted by taxpayers. In Bulgaria, direct and indirect participation in the referendum is in the constitution as well as public meetings. The votes in the referendum are the agreement that binds local governments. Local meetings can be organized by the Local Council or the Mayor or one fourth of the eligible

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voters. Their meetings may place emphasis on diversified local issues, maybe health and environment. Decision would be finalized if over half of eligible voters present in the meeting and the majority of participants say Yes to the projects.

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Mindfulness and Sufficiency Economy: Framework for Waste Management Reform

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Abstract—

Due to increase in population, economic expansion, growth and expansion of the city, more waste problems are increasing and becoming a global problem that every country encounters. Only waste management policies from government and waste management campaigns from private sectors cannot keep up with the excessive waste amount unless all people in societies become aware that their cooperation in waste reduction can make a great contribution. This paper provides an overview of waste management in Thailand, how private sectors take part in waste management, and how consumers in communities can contribute in waste reduction. It also suggests the framework of mindfulness and Sufficiency Economy Philosophy for waste management reform. Documentary study and literature review were used for data collection. The results showed that consumers can be a big producer of waste due to their overconsumption behavior, so they can take the major role in waste reduction with moderate consumption. Mindfulness can conduct consumers to stay awake and aware of waste problems and have a sense of caring towards other people, their communities and environment. Sufficiency Economy philosophy can work as a guideline for consumers to make ethical choice with moderation, reasonableness, and prudence. With the framework of mindfulness and sufficiency economy philosophy, waste management reform can be conducted at the beginning stage for waste reduction before it is generated. With the care of environment and their communities, consumers will be willing to work together with government and private sectors in following 3R (Reduce, Reuse, Recycle) concept for sustainability.

Index Terms— Waste manage reform, Moderate consumption, Waste reduction, Mindfulness, Sufficiency Economy Philosophy

I. INTRODUCTION

In Thailand the amount of municipal solid waste generated in 2018 was at 27.8 million tons, which is a 1.64% increase from 2017 due to expanding urban communities, and lifestyle changing from the shift of an agricultural to an urban society. Moreover, population growth, tourism promotion and higher consumption are also the factors that cause higher amounts of solid waste in various areas [1]. There are still many problems and obstacles that we should consider in order to correct and develop waste management to dispose waste efficiently in various areas nationwide and with best value for money as well as to reduce the impact that will cause injury to the public and damage to environment of the country.

Why a garbage crisis has struck and how can waste management be reformed? The waste management reform must be carried out in steps in order to educate local people, companies, manufacturers and other stakeholders to be aware of waste problems and to take part in waste management, to motivate them for serious collaboration as well as to establish waste management models for demonstrating effective management. In addition, the consumer behavior has to be changed so they can consumer moderately, knowledgeably, and rationally in order to reduce the problem of waste at source and to enable communities, regions, and governments to be successful in sustainable waste solutions.

Right mindfulness and Philosophy of Sufficiency Economy can be introduced as effective framework for waste management. Philosophy of Sufficiency Economy emphasizes that the producers or consumers try to produce or consume within the limitation of existing income or resources first while right mindfulness keeps them to go on track. This is an important principle in decreasing the requirement for unnecessary things, reducing waste generation, and increasing the ability to control the production. Right mindfulness and Sufficiency Economy principles and activities must be carried out at a sufficient level along with emphasizing on knowledge and virtue conditions. This framework underpinned by knowledge and morality could lead us to practical waste management reform and further sustainable waste management.

II. SOLID WASTE AND WASTE MANAGEMENT IN THAILAND

The Resource Conservation and Recovery Act (RCRA) of America states that "solid waste" means any garbage or refuse, sludge from a wastewater treatment plant, water

supply treatment plant, or air pollution control facility and other discarded material, resulting from industrial, commercial, mining, and agricultural operations, and from community activities. Nearly everything we do leaves behind some kind of waste. People need to know that solid waste does not mean only physically sold substance Many solid wastes are liquid, semi-solid, or contained gaseous material [2].

For Thailand, solid waste is a waste type consisting of everyday items that are discarded by the public including organic waste, plastic waste, industrial and toxic waste, medical waste, and electronic waste. Thais per capita generate an estimated 1.14 kg of solid waste per day— about 50 percent of it biodegradable. According to Interior Ministry statistics, refuse nationwide in 2016 amounted to 27 million tonnes, up about 0.7 percent from the previous year [3].

In Thailand the roles in solid waste management (MSW) and industrial waste management are organized by the Royal Thai Government, which is divided among the central government, regional governments, and local governments. Each government is responsible for different tasks. The responsibility for stimulating regulation, policies, and standards belongs to the central government while the regional governments are taking care of coordinating central and local governments. Local governments are in charge of waste management in their governed area. However, local governments themselves do not handle waste disposal, they hire private companies that have been granted that right by the Pollution Control Department (PCD) [4].

III. WASTE MANAGEMENT REFORM

Open-air dumps, an absence of street litter bins, an impractical waste recycling system and abundant overuse of plastic grocery bags are all evidence that Thailand has a huge waste and waste management problems. There are many standpoints we can analyze this problem from. To start, Thai people are not well educated on what recycling is and how they can do proper waste sorting. Lots of them don't even know how an individual's actions can make a difference. Just very few Thais realize that there are no dead batteries disposals, and the vast majority is never concerned at all that throwing everything in the same bin can cause harm to the environment.

Besides lack of knowledge about waste sorting and the inappropriate waste disposal by people in communities, consumption behavior is also one major factor of increasing municipal solid waste. According to the World Bank report

[5], it is estimated that the world will generate solid waste about 1.2 per capita and the amount is expected to reach 1.5 kgs. by 2025. That means every country will suffer from excessive amount of waste. The actual cause of the problem is that companies and producers have been trying to increase their sales and profits by supplying single-use products without prioritizing on reuse, recycling or the use of environmentally friendly materials [6].

Waste management reform is considered an urgency for Thailand in order to limit the amount of waste not exceeding the disposal capacity of the communities, both private and public sectors. Recycling is considered one of the most effective tools of waste management in our country. However, many communities still do not have enough facilities and they do not know how to collect, sort, and transport waste properly. That could be major obstacles for waste management. Thus, leading businesses in private sectors and government are required to work together in order to provide effective tools and equipment for the communities and educate the people about proper waste management.

IV. MANAGEMENT OF WASTE FOR RECYCLING

The appropriate and effective waste collection and management is to have it re-enter the recycling process at best possible. To be successful in waste management, there must be changes in behavior and management system which include efficient facility for effective waste collection, proper procedures in waste sorting and transporting, and reduction of contaminated waste to the minimum. For example, the PTT Global Chemical company collaborates with the governments, private sectors and communities in better waste management and promote the use of plastics sustainably. Besides the goal to reduce the quantity of plastic waste in Thai seas at least 50% within 2027, the company put efforts to reduce plastic wastes by using more biodegradable plastics and following the circular economy concepts of reuse, recycle, and recovery. They promote the development of reusable plastic products and transform plastic wastes into new products. In 2019, 300 tons of waste are recycled throughout the project implementation. More income, over 3.5 million baht, also can be generated in Rayong communities [7].

In addition, Khung BangKachao Model is a collaboration among 34 organizations from the governments, private sectors and civil sectors under the supervision of Chaipattana Foundation. Khung BangKachao Model aims to develop a green area and elevate the quality of life in community while developing the area to grow strongly and become a sustainable eco-friendly community model. PTT GC has

implemented the principles of circular economy to reduce waste problems as well as raise awareness in waste management from original source. An outstanding project in 2019 is the development of recycled monk robes. This project uses Polyethylene Terephthalate (PET) bottle recycling innovation to manufacture polyester threads. With the combination of polyester zinc and cotton, the strands are woven for fabric and made into monk robes. Besides transforming the used PET bottles in to value-added products, the project has also created jobs and brought more income to the community [8].

The Siam Cement Group has made efforts with the launch of "Bangsue Model" to encourage employees in the office at Bangsue and affiliated factories nationwide to change their behaviors in alignment with "Resource Maximization-Correct Sorting-Proper Disposal" concept. With the finding that correct waste sorting is the first stage for waste management, SCG has designed 6-color bins for easy-to-understand and for sorting waste of different material. Bangsue Model can be an outstanding example of proper waste sorting and it can decrease the amount of total waste steadily from month to month. Sorted waste, then, has been increasingly recycled and properly managed. Paper and plastic waste have been recycled. Waste from food scraps is composted as soil improvement substances for planting. SCG target at reducing the amount of waste sent to landfill to zero (Zero Waste to Landfill) by the year 2021 [9].

Moreover, the "ThinkCycle Bank" project of PTT GC is also another initiation to transform waste into valuable materials in the economy. The project uses online recycling bank to handle the waste problems at its source. Thus, it can promote understanding on waste separation and waste reuse according to the Circular Economy, while creating a network for waste separation from households to provincial level. The project can promote awareness of waste and waste problems in youth communities and guide them how to manage waste and maximize its benefits as well as provide more jobs and incomes from recycling wastes. In 2019, 12,581 tons of wasted were recycled [10].

Figure 1. Garbage bins in 6 different colors for waste segregation [11]

Garbage bank can be considered as an example of how to manage waste and how to turn waste into income as it buys back sorted waste from the members and send them to recycling process in factories. However, it needs to integrate technology to keep the record updated as now they record transaction in notebook which cause difficulties and delay in the process. Therefore, SCG develops "KoomKah" application on mobile phone to get the waste management more systematical and effective as it can record amount and type of the waste, inform buying and selling prices, even assist in trading and transportation plan. The application provides more opportunities to distribute garbage to recycling factory and power generation plant from waste. Currently, Koomkah application has been used by 23 communities' garbage banks [12].

For an Approach to Waste Recycling Collaboration, SCG realizes that to enhance waste collection to be successful in accordance with Circular Economy principle requires the involvement from a number of sectors outside the organization. SCG, therefore, steps up the effort to develop project and innovation as a tool. An example is with regards to the development of PaperX Digital platform to provide service in buying back the wastepaper and returning them to the recycling process through PaperX application. Another example of cooperation is Siam Fiberglass company, the producer of insulation glass wool, introduced the insulator waste as the new material for new insulation glass wool production. The project increases the use of recycled materials by 4% and decreases the amount of disposal waste from the customers for more than 435 tons per year. Besides, Siam Fiberglass Co., Ltd. processed Post Consumed Glass Cullet as substitute raw materials for Silica Sand, which can reduce consumption of natural resources by 10,500 tons per year [13].

Although cities are the large sources of waste, especially plastic waste, they are positioned to achieve waste management in the near future. If there is a practical national framework, cities will be able to design education and incentive programs that promote culture of recycling, and set up regulatory framework for recycling as well as start pilot projects for proper collecting and sorting which will make recycling process efficient and easy to access. It requires Integrated programs to reach the full potential of plastic-waste management. What they have learned from previous practices can be used as information for developing the best practices for easy sharing and repetition. Waste management can be a critical issue for the plastics industry for many years from now. As a result, the plastics industry is at a crossroads and now is the time to act.

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In Thailand, waste is classified into municipality solid waste, industrial hazardous waste, infectious waste, plastic waste, and e-waste. The basic laws for waste management in Thailand are related to municipality, public health, environmental quality and conservation, and decentralization. Thailand generates a large amount of municipal waste, at about 27 million tons per year. MSW generation per capita per day in Thailand is 1.05 kg as of 2016, which comes in fourth place among ASEAN countries after Singapore, Brunei and Malaysia [14].

The amount of annual MSW generated is increasing every year. Out of 26,850,000 total tons of MSW in Thailand, 76.23% is collected in collection areas (20,470,000 tons), 17.65% is recycled, and 31.06% is properly treated, while 26.63% is improperly treated (8,340,000 tons). Of the 31.06% of MSW properly 8 treated, 25.66% goes to landfills, 1.52% is incinerated, while only 1.82% is composted. The composition of MSW is mostly (1) Food/Organic waste 64%, (2) Paper 8%, (3) Plastic 17.6% and (4) Metal 2% [15].

Thai government together with private companies and Thai people aim to turn Thailand into a zero-waste society in order to solve waste problems. Department of Environment Quality Promotion has produced a 'Mission Zero Waste' educational booklet to be used in schools. The book contains helpful suggestions for the youth how they can reduce, reuse, and recycle their waste. The book also introduced a 'Zero Waste Community' award for villages that are able to significantly reduce the amount of waste that they produce. The response is quite appreciated; in 2017 over 700 villages entered the competition, which was won by two villages in Buriram Province in the country's northeast [16]. In order to reduce their waste, the villagers separated and recycled all their plastic, paper and glass, and transformed their organic waste into fermented fertilizer and organic pesticides to replace chemical products on local farms. In this way, villagers not only live healthier lives, but they make money from their waste.

Mission Zero Waste, waste recycling project, correct waste sorting, and recycling bank are the cooperation between government and private sectors in regards to waste management and these programs are all the actions after waste generation. However, there seems to be no mention of reducing excessive consumption or promoting the framework of moderate consumption with mindfulness. Mindfulness and moderation can help consumers make their choice of consumption in a right manner which responds to their needs and does not cause harm to communities and environment.

V. MINDFULNESS AND SUFFICIENCY ECONOMY PHILOSOPHY

Economics says demand → consumption → satisfaction, and that's the end of it, there's no need to know what happens afterwards. In this view consumption can be of anything whatsoever so long as it results in satisfaction. Economics does not consider if human well-being is negatively affected by that consumption. Buddhism agrees with the basic concept of consumption but adds that human well-being must be augmented by the satisfaction of a demand. Consumption must improve quality of life as its aim. This is the difference of perspective [17].

According to economic perspective, ones becomes satisfy when their desires have been fulfilled or their requirements have been served. What if their desires are higher than the amount they really need? The surplus of their need can become waste. Some visible examples are people order more food than what they really need for a meal, buy more clothes than what they really need for their living and working, and purchase more electronic gadgets than what they really want to perform their jobs and daily routines. The excessive quantity of food, clothes, and gadgets can be considered as waste. Can excessive consumption be considered as a major factor of waste generation? The answer is 'yes'. Thus, moderate consumption should be considered as the initial stage of waste management reform.

Right mindfulness is one of the principles in Buddhist Nobel Eightfold Path. mindfulness, sati, is interpreted as never be absent minded, being conscious of what one is doing. This encourages the awareness of one's action in every moment. Mindfulness can be likened to a state of "natural, uncontrived, spontaneously arisen awareness that is inseparable from every moment of experience" [18]. Consumption with mindfulness can help consumer stay aware of the choice they are making, what they buy, what they eat, what they do, and being considerate of other people, communities, and environment. Right mindfulness can guide an individual to right direction and go on a more sustainable way. Right mindfulness can strengthen waste management reform in term of guiding individuals to keep going in moderate consumption.

Another conceptual framework that can be effective for waste management regarding moderate consumption is the Principles of Sufficiency Economy, the principles initiated by H.M. King Bhumibol Adulyadej over 30 years ago for guidance on development stressing the modest practices and conscientiousness in all modes of conduct. Principles of Sufficiency Economy is a guidance of how people can lead their lives with moderation, reasonableness, and prudence on the basis of knowledge and virtue. It also encompasses wisdom and perseverance which will enable people to live a

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truly harmonious and happy life. Two conditions in the principle are Knowledge and Virtues. Knowledge relates to academic approaches and the ability to integrate and knowledge in planning and implementation prudently and carefully. Virtues adheres to ethics, integrity, patience, perseverance, and living life intelligently. Sufficiency Economy principle also includes three principles; Moderation, Reasonableness and Prudence. Moderation means the sense of not too much or not too little and being moderate without exploiting oneself or others. Reasonableness, the choice of sufficiency level should be justifiable by carefully taking into consideration all the relevant factors and consequences that may ensue as a result. Prudence means preparing for and conducting oneself to cope with the impacts and changes through the anticipation of the situations that may happen in the future [19].

The philosophy of the Sufficiency Economy guides the people to a balanced way of life and to be the main sustainable development theory for the future. The theory is based upon a Middle Path between society at the local level and the market in the global context. By highlighting a balanced approach, the philosophy allows the nation to modernize without resisting globalization but provides a means to counteract negative outcomes from rapid economic and cultural transitions [20]. The Sufficiency Economy became critical during the economic crisis in 1997, in which Thailand needed to maintain stability to persist on self-reliance and develop important policies to recover. By creating a self-supporting economy, Thai citizens will have what they need to survive but not excess, which would turn into waste. This can be applied to the individual level, the community level and the national level.

It is important to strengthen the morality of people in the nation, so that everyone, particularly public officials, businessmen, academics, even consumers, carries their roles within the principles of honesty and integrity. In addition, with patience, perseverance, diligence, wisdom and prudence in their way of life helps them create balance and be able to cope appropriately with critical challenges arising from rapid socioeconomic, environmental, and cultural changes in the world.

The sufficiency economy philosophy is considered a new paradigm for development and aims to improve human well-being as well as providing a balanced way of living to people. Immunity to environment changes prompts individuals and their communities to be aware of the impacts their actions and consumptions may have on the environment, and subsequently their livelihoods. That is an awareness leading them to live in harmony with nature. In order to construct effective waste management, it is important to help practitioners realize the real value in the practice. Mainstream consumption, leading to consumerism

may cause internal and external shocks. In contrast, consumption with reasonableness and with consideration in all modes of conduct could prevent the long-term impacts on society and environment. To achieve this, the application of consciousness and knowledge with prudence should be kept in mind of everyone in every society. Rules and regulations could not be built alone, unless the actions of practice are initiated and developed. It was also important to evaluate those practices by following up the actions. Unnecessary or useless practices must be replaced with a more practical one. (Figure 2)
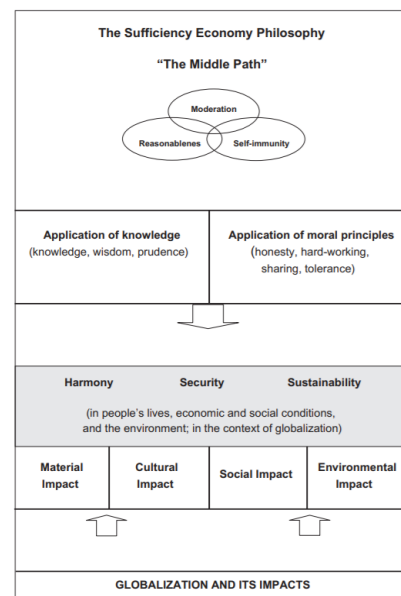
Figure 2. The philosophy of sufficiency economy framework [21]

With the framework of right mindfulness and sufficiency economy, waste management can be operated more effectively because the process starts from reduction of waste generation. People and communities can work together in managing their waste properly according to 3R (Reduce, Reuse, Recycle) since they stay aware of waste problems, have knowledge about waste pollutions and its harm to themselves and their communities, and retain good care about the environment. (Figure 3)
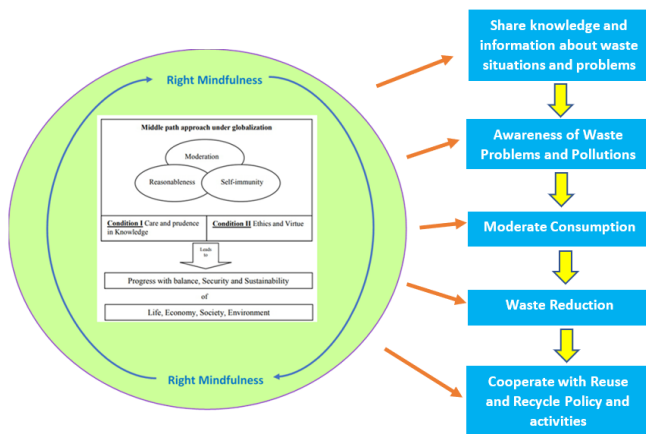
Figure 3. Right Mindfulness and Sufficiency Economy Framework for Waste Management

Moreover, we can establish a robust regulatory environment to support the sustainable operation of the waste and resource recovery industry by following the sufficiency economy philosophy which guides to a balanced way of life and to be the main sustainable development theory for the future. In addition, a way of life based on patience, perseverance, diligence, wisdom and prudence can help us create balance and enable us cope appropriately with critical challenges arising from rapid socioeconomic and environmental changes. In order to succeed in waste management, it requires the change in behavior and management system, right facility for efficient collection of waste, proper procedures in waste sorting and transporting. The concept of gaining currency in waste policy is one of motives in the circular economy, which envisages keeping products, components, and materials at their highest utility and value at all times [22]. Right mindfulness and sufficiency economy philosophy can strengthen waste management reform efficiently.

CONCLUSION

Consumers in the era of globalization and economic integration are having more access to more products and services. Also, rapid urbanization, increase in population, higher income and consumption inevitably lead to mass generation of waste. In order to achieve sustainable development, a paradigm shift is needed from reactive policies to more preventive policies. In a scenario where technology matures, the "ThinkCycle Bank" in one of practical projects in order to transform waste into valuable materials in the economy by using the online recycling bank. PTT GC has put its efforts to solve the waste problem at its source and promotes understanding on waste separation and waste reusing. Moreover, Garbage bank is considered a mechanism in the cycle of circular economy through the

buying back of sorted waste from the members and passing them on to the recycling process of the factories. ThinkCycle Bank and Garbage Bank are model to increases the opportunity to distribute garbage to recycling factory and power generation plant from waste. Furthermore, The Siam Cement Group has launch of "Bangsue Model" to encourage employees in the office and affiliated factories nationwide to change their behaviors in alignment with "Resource Maximization - Correct Sorting-Proper Disposal" concept. With the finding that correct waste sorting is the first stage for waste management, SCG has designed 6-color bins to respond the finding. In addition, Khung BangKachao model aims to develop a green area and elevate the quality of life in community by developing the area to grow strongly and become a sustainable eco-friendly community model. The main activities of the associations are that they carry out information and educational activities to raise awareness of individuals and legal entities about the importance of waste disposal, and to educate legal entities in the treatment of waste. In order to achieve sustainable development, the reactive policies need to be changed towards more preventive policies. In this paper we have addressed the Right Mindfulness and Philosophy of "Sufficiency Economy" as a practical framework for waste management reform at the initial stage which will contribute to awareness of waste problems, moderate consumption, waste reduction, and cooperation with 3R (Reduce, Reuse, Recycle) policy. This framework underpinned by knowledge and morality can lead us to effective waste management reform and to sustainability.

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A Digital Circular Economy for SDG 11 and SDG 12

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Abstract—*Due to the population growth, cities and metropolitan areas contribute about 60% of global GDP, but they generate about 70% of global carbon emissions and account for over 60 % of resource use and increasing urban energy consumption and pollution. Worldwide consumption and production also increase the use of the natural environment and resources in a way that continues to have destructive impacts on the planet. This article is to study the Sustainable Development Goal 11: Sustainable Cities and Communities and Goal 12: Sustainable Consumption and Production, to study the role of digital technology and digital transformation in Circular Economy, and to investigate how digital based applications can contribute to sustainable cities and communities. Documentary study and literature review were used for data collection. Moving towards circular economy is a challenge due to the lack of connections and accurate information sharing, complication in developing circular business, product, and process models as well as inability to access information and education among consumers. The result shows that digital technologies including big data, analytics, IoT, AI, blockchain, etc. can play a vital role in connecting different sources of information, processing data, providing more access to information, and easing out the complication in designing, production, and service. It can also be used as a tool in managing congestion, risks, and environmental impacts in cities and communities.*

Index Terms— *A Digital Circular Economy, SDG 11, SDG 12, Sustainable Cities and Communities*

I. INTRODUCTION

The Sustainable Development Goals (SDGs) is the world's best plan to build a better world for people and our planet by 2030. Adopted by all United Nations Member States in 2015, the SDGs are a call to action and to promote prosperity while protecting the environment. The circular economy is a framework for the effective scaling of sustainable economic models within planetary boundaries. The principle of extending the lifecycle for materials is the transition to renewable energy, respect for biodiversity, societal balance and social inclusion. Moving forwards to the circular economy means moving forwards towards the Sustainable Development Goals, which set out on the transition towards a circular economy from various market segments such as agri-food, manufacturing and the built environment.

Technology becomes an important theme in the realm of social innovation, design and coalition-building. Moving towards circular economy is what the world wants to achieve. Thus, digitalization has tools to optimise and streamline the use of resources and processes. The roadmap for a digital circular economy initiative is a good start for the synergies between circular economy and digitalisation. In a digital circular economy, digitalisation has a vital role in making the coordinate and connect material and information flows better via technical solutions such as sensoring, automated platforms, Internet of Things (IoT), or block chain applications. However, many seemingly ordinary digital solutions like apps directly connect to our everyday consumer life, which you can use via your browser or a smartphone app. Implementing circular economy on a large scale cannot be achieved without the help of digital technologies. Big data capabilities, connected objects, deep learning insights, automation and robotization will be at the heart of this transformation. This change will become a new source of value creation for companies and society and give opportunity to new industries to create new jobs. But it requires a profound cultural change to abandon a model that has served and shaped our societies for more than a century. Therefore, It is essential to emphasize the role of digital technologies so that the involving sectors; government, business and industries, research and education, as well as

investors will share the same concern and put more effort in accelerate the move towards digital-based circular economy and promote sustainable cities and communities for us and our future generations.

II. SDG 11: SUSTAINABLE CITIES AND COMMUNITIES

Since 2007, more than half the world's population has been living in cities due to urbanisation and the number is expected to rise to 60 % by 2030. As the powerhouse of economic growth, cities and metropolitan areas contribute about 60% of global GDP. However, they generate about 70% of global carbon emissions and account for over 60 % of resource use and increasing urban energy consumption and pollution as well. Cities take up only 3 % of the Earth's land, but they account for 60–80 % of energy consumption and 70 % of carbon emissions [1].

By 2050, it is estimated that two-thirds of all humanity, 6.5 billion people, will live in urban area. To achieve sustainable development, it is necessary to make changes in the way we build and manage our urban spaces. Cities, especially in the developing world, have become dense due to the rising populations and increasing migration and slums are becoming a more significant feature of urban life. These places where we live, work and spend time with our families and friends can determine our common future.

Therefore, cities need to be sustainable for future generations. That means cities will have to provide career and business opportunities, safe and affordable housing, and build resilient societies and economies. Sustainable cities are also healthy and competitive, and able to provide all the societal needs, including food and nutrition, water, and infrastructure, for its people within the capability of the earth. Sustainable cities, thus, requires a circular economy where resources are kept at their highest qualities for as long as possible through sustainable practices such as sharing, remanufacturing, reusing, repairing, and recycling [2].

The transition towards a sustainable city, circular economy, involves collaboration and coordination among the local government, businesses, local organisations, technologies, industries as well as resources. In cities around the world, they have increasingly recognised the diverse benefits of circularity. The lessons and experiences learned by those pioneering cities can provide important insights and can be used as guidance and serve as an action agenda for aspiring circular cities of the future.

Some practical guidelines which have been developed in the Netherlands can be served as an action plan for cities throughout the world in order to create circular cities. Those

guidelines include a platform to showcase best practices of the city; finding circular potential of the city and setting priorities and ambitions; calling for business involvement from the start and creating space for experimentation; knowing challenges and addressing solutions; facilitating cross-sectoral collaborations; leading by example and building on success; integrating circular thinking into all educational programs and training; monitoring, adjusting, and scaling [3].

III. SDG 12: SUSTAINABLE CONSUMPTION AND PRODUCTION

SDG 12: "sustainable consumption and production," focuses on promoting resource and energy efficiency, building sustainable infrastructure, and providing more access to green and decent jobs and a better quality of life. The practices are highly relevant to water management, waste management, sustainable products and services, sustainable supply chains as well as synergies with renewable energy on a circularity basis. They can help address problems of water, soil, and air pollution from industries through the circular Rs concept of rethink, reduce, redesign, reuse, repair, refurbish, remanufacture, recycle and repurpose.

It is essential to promote sustainable consumption and production because there is a big jump of material consumption from 2000 to 2010 due to the growth of the middle class in developing countries. The total amount of natural resources used in economic processes increased from 1.2 kgs. to 1.3 kgs for each unit of GDP or total 48.7 billion tons to 71.0 billion tonnes respectively, particularly in eastern Asia [4] Consumers have a great impact on the planet which comes in hidden forms. The processes of production and transportation account for 86% of the impact while they use up 43% of global energy in producing products, food, services, and so on. Also, another 33% of energy is lost during the energy generation as generating energy also cost energy. Thus, the circular economy has great potential for energy transition as energy use related to raw materials is a significant part of our energy management. Circular economy practices can also be used in industry and buildings for energy efficiency [5].

IV. ROLE OF DIGITAL TECHNOLOGY

Digital technology is made to help people in their tasks. There is still potential for digital technology to be more advanced and more applicable for variety of businesses and industries. In 2019, the global technology market spending reached $3,360 billion [6].

Digital technology plays a vital role in making our world more connected with its expanding information network like

the Internet and the web. Through it, we can interact and communicate with emails, conference calls, social media apps. The lives of students and teachers are also become better with digitization in the education sector. In the health industry, it has saved thousands of lives with advanced machinery and innovations [7].

Revolution of digital technology has also made a huge change in the labour force as it has been creating new forms and patterns of work which makes others obsolete. For example, 24 million new jobs in energy sector could be created by 2030 as countries around the world make a shift to greener economy and adopt sustainable practices such as using electric vehicles and increasing energy efficiency. Digital technologies, such as AI and data pool are also used for diagnosing and tracking problems in health, agriculture, and the environment sectors [8].

Digital technology provides us better access to information and data and enables us to communicate and work more efficiently. It increases productivity, promotes cost efficiency, preserve information, saves more space, and enhances competitiveness [9]. Besides its benefits in business, digital technology also brings great benefits to industries, such as reducing energy usage, predicting maintenance, increase innovation, and making storage smarter [10]. Therefore, digital technologies (DTs), such as the Internet of Things (IoT), big data, data analytics, and AI are considered essential enablers of the economy and they are applied to circular economy.

V. Focus on a Digital Circular Economy

The climate crisis, depletion of natural resources, competition over resources and pollution are affecting Europe and the world more generally, posing a threat to our economy and society. The challenges are manifold and systemic. They are closely linked to economic activities and current lifestyles, unsustainable production and consumption patterns as well as how our economies and societies are structured. It is estimated that at this moment the world is only 8.6% circular [11]. However, there is a growing recognition amidst politicians, citizens and the industry that changes are dire. Shifting from a linear take-make-dispose model to a circular economy, smarter use of resources, and achieving more sustainable production and consumption patterns could bring multiple benefits and help address the multiple challenges listed above.

Maintaining the value of products and materials for as long as possible; minimising resource use and waste; and increasing repair, recovery/reuse of materials and products as well as recycling rates would reduce pressures on resources and decrease greenhouse gas (GHG) emissions. It is estimated that half of the carbon dioxide emitted by the EU's

heavy industry by 2050 can be prevented by making the industry more circular [12]. Looking at the global level, 40% of carbon dioxide emissions from key materials (i.e. cement, steel, plastics, aluminium) almost 50% from the food sector, 40% from construction and 70% from the mobility sector could be reduced if these sectors are made more circular by 2050 [13]. Smarter use of resources would allow Europeans to manage materials better and create more value from their use. Indeed, greater circularity can be seen as the means to future proof resource-intensive industrial sectors while simultaneously enhancing competitiveness and industrial modernisation. It has been estimated that the transition would create new markets, jobs, products and services, boost EU's GDP by 7% and generate a net economic benefit of €1.8 trillion by 2030 [14].

The current situation we are facing is that our lives, our livelihood, and our world are being threatened by our economic activities which bring huge environmental challenges of resource shortage and global warming. It is, thus, necessary to examine different approaches to business in order to meet these challenges. It is an urgency for all parties to develop industrial and business models which take less and less on finite, non-renewable resources and reduce carbon emissions. With a great deal of change in industrial revolution, technology has become a key player in redesigning businesses for more ecologically friendly. Digital technology can be used in many forms to map, organise, and optimise our global economy in adapting to a circular economy.

Moving towards a full circular economy is a big challenge, but so was digital transformation at its beginning. It took years and high cost as well as efforts in the journey of digital transformation from IoT to blockchain which now has been used more widely. Therefore, it is the time to push for changes in business models, products and services to move forward towards sustainability in the long term. The transformation should promote big data capabilities, connected objects, deep learning insights and advanced automation. The circular economy will ensure a positive human future which is enabled by technological breakthroughs and intelligent design. Technology will take a critical part in this change and it will make us survive on infinite resources when incorporating innovation into businesses and industries.

The digital transformation is taking place fast. Around 60% of the global population has access to the Internet. Around two-thirds uses a mobile [15]. Digitalisation is transforming our economies, societies, communications, jobs and necessary skills for today and tomorrow [16]. There is no turning back. The question that remains is whether we will embrace the many possibilities digitalisation generates and

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create framework conditions which maximise them and minimise unwanted consequences.

In real life, data and digitally-enabled solutions like online platforms, smart devices, artificial intelligence (AI), the Internet of things (IoT) and blockchain are already used to support a transition to a sustainable circular economy. They are used to improve design, production, consumption, reuse, repair, remanufacturing and waste management, including recycling (see Figure 1) [17].

Figure 1. Digitalisation as an enabler for a circular economy [18]

Achieving a sustainable circular economy is one of the most complex challenges of today. Digitalisation cannot immediately solve all of the challenges. However, digitalization can be an enabler and accelerator for positive change and help address many of these obstacles. As digitalisation is designed to address complexities, gearing the use of data and digitally-enabled solutions to address the sustainability crisis offers many possibilities. In the transition to a circular economy, different approaches to using digitalisation have been divided into three categories as below: (see also figure 2) [19]

1) Digitalisation for knowledge improvement, better connections and information sharing. The improvement of data management by improving information and knowledge could raise awareness and guide action for all stakeholders. It also will improve policymaking and the implementation of existing legislation. Digitally-enabled solutions can build strong connections and partnerships among stakeholders,

and help information travel with products and materials across the value chains.

2) Digitalisation for making business models, products and processes more circular. Improving the management of data and digital-enabled solutions can lead to greater circularity as it will support more sustainable business models and improve designs, production, use, reuse, repair, and waste management which includes recycling.

3) Digitalisation for strengthening the role of citizens and consumers. Digitalisation can give people more access to information and education. It also influences and enable people to make sustainable choices and engage them more in active participation in the economy data and knowledge.
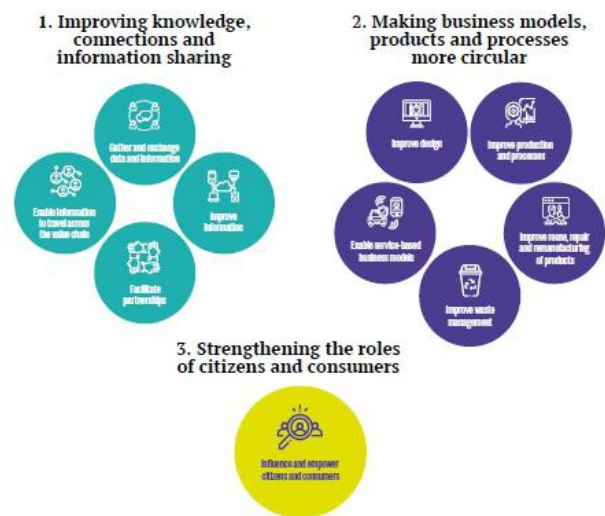
Figure 2. Using digitalisation in the transition to a circular economy [20]

In achieving the circular economy, the whole current value chains need to be redesigned from resource extraction and manufacturing to end of life of products and services. Each participant at each stage needs to get delineated feedback across the entire value chain in order to make change in their attitudes and business models at all stages of the product value chain. At the government and administration sector, it is essential that they take a global perspective of the economic cycle. Digital technology will take important part in mapping, organizing, controlling, and ensuring consistency throughout the chain. At the operation level, this can greatly impact all levels of the product chain as it develops interactions and interdependencies among the manufacturing, distribution, and consumer ecosystems. Thus, it requires a closer look at a potential digital circular economy model to understand the role of technology as enablers for making such changes [21].

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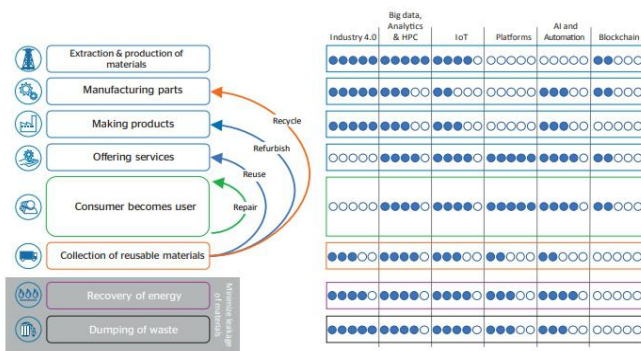
Figure 3. Circular economy digital model (Industry example) [22]

Figure 3 above shows the product lifecycle within the circular economy and how digital technology can be used as digital enablers. The product chain starts with reducing raw material extraction by placing it with green material. Industry 4.0 with 3D printing can help in reducing and reusing raw material. Next, product needs to be designed to extend the product life and product-as-service model. Big Data, analytics and High Performance Computing (HPC) can be used as support of predictive maintenance models to eliminate malfunction and waste during operation. Data platform and blockchain can connect all parties to a sharing business model for cost effectiveness. To further support the product-as-a service model, design should easy personalization (mass customization versus mass standardization). Furthermore, it should be designed for continual improvement and zero fail service (zero default standard). This may be done through a connected flow, with feedback data to be accustomed improve the planning and efficiency of a product and supply predictive analytics

In order to move from take-make-use-dispose product line to a circular economic system, all involving sections need to have all relevant information about resource used, sourcing and working conditions, production and recycling processes, etc. Digital technology can make this all information updated and easy to access and traceable as well as ensure the information security. This is a complicated task that need to be done by digital means. With this data, it is possible to virtually experience what happens in all phases of the product life cycle and then create a virtual digital product which can be used to study what raw material and processed materials are best suited for the product, production, the use phase, and recycling, so that they can be incorporated into a new lifecycle further down the line. Based on this knowledge, purchasing can decide where to buy the materials, whether from natural sources or recycling. The business also can identify risks to environment, people, and the company and decide whether to minimize or avoid [23].

The most effective solutions will involve a combination of smart consumption and disposal measures as well as the development of cost-competitive and environmentally friendly alternatives. For example, we can implement digital circular solutions for reusing or repurposing plastic waste in the most efficient way. Plastics regeneration technologies such as pyrolysis will also play a part in these efforts and are technologically and financially viable alternatives. However, it also requires a cross-value-chain collaboration to appreciate the full benefits of plastics regeneration. More than 40 global and regional chemical companies, packagers, consumer goods manufacturers, and waste managers have pledged to invest up to $1.5 billion in plastic waste management infrastructure in Southeast Asia [24]. This move clearly signals that the private sector is ready to scale up efforts to combat one of the most pressing environmental issues of our times. While this is a credible start that may yet catalyze further investments in the cause, we still have a way to go before we find a comprehensive, definitive solution.

The circular economy powered by digital technologies will play a vital role in achieving SDG 12 by reducing the requirement for extraction of limited natural resources. It can help identify new and alternative manufacturing strategies that provide additional value propositions to customers, while reducing structural waste [25]. Also, the productivity and intelligence gained from digital technologies can unlock new solutions to environmental challenges such as climate change, biodiversity, plastic and e-waste, ocean health, water management, and air pollution, among others.

Likewise, digital technologies will be one of contributors to the achievement of SDG 11; Make Cities and Human Settlements Inclusive, Safe, Resilient, and Sustainable. To provide access to safe, affordable, accessible and sustainable transport systems for all by 2030, machine learning algorithms in smart transport can help increase safety and traffic flows [26] and at the urban-level, these capabilities also enable the integration of public and private modes of transport to create an efficient city mobility service by looking for patterns in transport demand, optimizing routes and improving efficiency and safety [27].

To be adaptable to climate change and resilient to disasters, many applications for weather and disaster resilience emphasize on the ability to forecast extreme weather and natural disasters. Predictive analytics powered by AI and other digital technologies including IoT, drones, blockchain, and advanced sensor platforms can help governments and the scientific communities monitor tremors, floods and windstorms, as well as sea level changes and other possible natural disasters, in realtime with thresholds for automated triggers, that enable early evacuations when needed [28].

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To reduce the environmental impact of cities and improve air quality, some early examples are filtration, air purifiers which use machine learning to record air quality and environment data in real-time and adapt filtration efficiency [29]. AI applications are also used for real-time air quality monitoring. Besides, the combination of machine learning and IoT is used for harnessing data from air quality stations and more widespread sources, such as traffic systems, weather satellites and stations as well as industrial sector, topographic maps, and even social media, to develop predictive analytics for 2 to 7-10 day forecasts [30]. Machine learning is used to provide real-time data on water quality, while AI is also used to analyse and determine optimal performance of water and minimize water loss [31].

Digital Technologies can play a vital role in the achievement of the Sustainable Development Goals, SDG 11 and SDG 12, as it promotes sustainability in natural resource, production and consumption, and waste management throughout the product chain in the business and industrial sector. It also helps promote safe and accessible transport system, resilience to climate change and disaster, clean air and water supply for urban lives. (Figure 4)
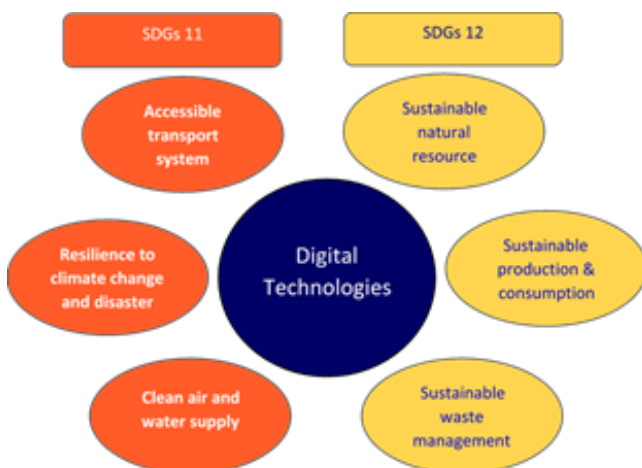
Figure 4. Digital Technology as an Enabler for SDG Goal

CONCLUSION

Digital technology is one of good enablers for overcoming many of the factors that are still holding back the circular economy. The development of the circular economy depends heavily on disruptive digital innovations, that is why many pioneering players either already have strong high-tech roots or are creating an ecosystem of partners with key technology capabilities. Also, competition in this fast-moving digital transformation can give more pressure on the formerly cohesive business models, force leaders to reevaluate their value propositions and search for more competitive and comprehensive ways to create value. The end of life of a product means there is value leakage, as important by-products are not collected for productive reuse. Instead of ignoring the value by throwing away products and materials after use, the circular economy stops this practice and recover more value. Digital technologies (DTs), such as the IoT, big data, and data analytics, are considered essential enablers of the circular economy. In a digital circular economy, digitalisation has a vital role in making the coordinate and connect material and information flows better via technical solutions such as Internet of Things (IoT), sensoring, automated platforms, or block chain applications. Consumers can have better access to updated and more interactive information through their smartphones. The emerging application of AI for transition to a circular economy enhance and enable circular economy innovation. However, as both circular and digital technology are emerging fields, there is still little systematic guidance on how digital technologies can be applied to capture the full potential of circular strategies for improving resource efficiency and productivity to the goals of manufacturing companies in contributing the SDG 11 and SDG 12.

Therefore, there should be actions for developing sophisticated national and international governance structures for digital-enabled circular economy. These mechanisms working together with business and industry can ensure sustainable growth that is aligned with UN's Sustainable Development Goals. Besides, investors and capitalists should take part in fund provision to promote digital-based innovations that will advance the digital circular economy as well as promote sustainable cities and communities on cost efficiency. Moreover, further research is also required to identify systematic and repeatable errors and to find ways to improve the functioning of AI, specifically for environmental applications.

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Zero Waste Management through Mindful Consumption for Sustainable Waste Solution

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Abstract—

Due to the population growth, economic expansion, and urbanization, waste becomes a critical problem of societies. Zero waste policies are a great and important way in which local businesses take an interest to preserve our environment. Going zero-waste, however, is a hard and intense process because there are many challenges and hindrances along the path. This article provides an overview of the guiding principles to solid waste management and to look at zero waste management in Japan, Singapore, and Thailand. It also suggests mindful consumption as tool for zero waste management towards sustainability. Documentary study and literature review were used for data collection. The result shows that zero waste management needs to be developed step-by-step and it needs involvement of all stakeholders. It can bring economic and environmental benefits to the countries, but it leads to more financial cost of implementation and operation. Mindful consumption, based on Buddhism principle of right mindfulness, is considered a helpful and practical way for everyone to help their communities reduce waste through moderate consumption. With mindfulness, individuals care not only for their own wellbeing, but for others, communities, and environment. They will participate in source separation, reuse, and recycling programs as they realize that conserving environment and reducing the use of natural resource over the life cycle of the service and products can lead their lives more sustainable. The right understanding in the cause and effect of waste can lead people to engage in waste reduction, reuse, and recycling and move towards sustainable waste solution.

Index Terms— *Mindfulness, Mindful Consumption, Zero Waste Management, Sustainable Waste Solution*

I. INTRODUCTION

Waste generation around the world is constantly increasing. In 2016, 2.01 billioin tonnes of solid waste was generated around the world which was equal to a footprint of 0.74 kilograms per person per day. By 2050, annual waste generation can increase by 70% due to rapid population growth and urbanization [1]. According to report from World Bank, many local administrations will probably spend the highest budget only for waste management. This budget can take up 20% of municipal budgets in low-income countries, on average. Research suggests that investment in sustainable waste management could bring benefits to the country because poor waste management can cause significant health problems and environmental impacts. And tackling to these problems will cost many times higher than the cost of developing and operating proper waste management system. Since 2000, the World Bank has committed over $4.7 billion to more than 340 solid waste management programs around the globe [2].

In Thailand the amount of municipal solid waste generated in 2018 was at 27.8 million tons, which is a 1.64% increase from 2017 due to expanding urban communities, and lifestyle changing from the shift of an agricultural to an urban society. Moreover, population growth, promoting tourism and higher consumption are also factors that cause higher amounts of solid waste in various areas [3]. The improvement of waste management resulted from government policy concerning Zero Waste Society, which is based on the 3R (Reduce, Reuse, Recycle) approach - civil state focuses on waste management at the source by the collaboration of both public and private sectors. There are still many problems and obstacles that we should consider, leading to the correction and improvement of waste management in various areas nationwide to make it efficient with value for money. The most efficient waste management includes the ability to reduce the impact that will cause injury to the public and damage to environment of the country concretely and sustainably.

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Recycling innovation, the process of converting rubbish into new materials, is the best method for managing waste in zero waste concept; while incineration, the process of controlled combustion used to turn waste into energy, is considered far more favorable than landfill sites and illegal dumping. Zero Waste approach is a constructive way to conserve resources as a goal towards environmental and social justice and regeneration, equity and respect for nature. To achieve Zero Waste management, people in communities can also take part in the zero-waste process in reducing waste. With mindful consumption, they could offer a great help in minimizing waste at source. Mindful consumption, based on the Noble Eightfold Path of the Lord of Buddha, is a very clear, effective, and simple path of living, not just for personal benefit, but for whole species.

II. GUIDING PRINCIPLES TO SOLID WASTE MANAGEMENT ROADMAP

Waste collection and disposal have been operated since the historical time with its emphasis on protecting the health of local people and to improve the beautiful appearance of countries. The city growth and industrialization in 19th century led to more waste problems because it included a lot of non-perishable waste. In 20th century, waste amount was getting bigger and the problem became more complicated. There were more concerns and attention to environmental protection. Therefore, waste was viewed as a resource for material and energy recovery. Many developed countries gradually moved from deposal to prevention, recycling, and recovery. 28 member-states of the EU including Japan are the leaders in the development and application of environmental policies in the waste sector. Other countries are studying and replicating their examples. The 'sound material-cycle society' policy principles and the 'waste hierarchy' policy adopted by Japan and EU respectively are based on the same foundation of fewer natural resource consumption and more waste prevention, reuse, recycling, and recovery [4]. (Figure 1)
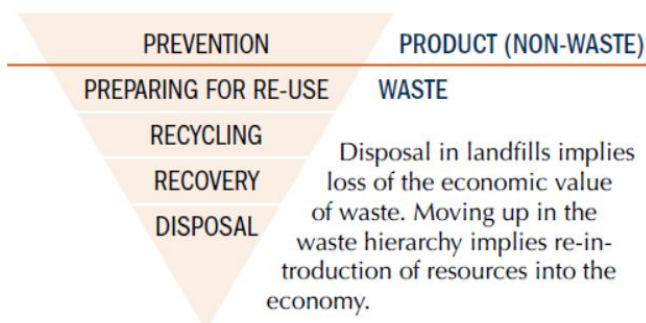
Figure 1. Waste Management Hierarchy [5]

Although these policies for waste management can bring economic and environmental benefits to the countries, they lead to more financial cost. According to the World Bank's What a Waste report, the financial cost of recycling and incineration is exceeding USD 100 per ton. Even in the EU which follows the principles of "polluter pays", the households pay for waste service at average USD 260-350 per year. And in Japan, the cost of waste system is about USD. 500/ton which is financed by property taxes, subsidies, and waste fees. Moreover, low- and middle-income countries that have duplicated such principles confirm that they are not profit-generating activities. It also requires staff capacity, sufficient financing, environmental legal enforcement, and public environmental awareness for successful implementation of the waste hierarchy.

Therefore, the waste management roadmap has been established from analysis of the experience of Japan, the EU, and other countries including Azerbaijan, Belarus, Bulgaria, and Romania. Azerbaijan and Belarus have followed waste management approaches similar to those of the EU according to their strategy and planning documents. The roadmap is the extraction of the accumulated experiences taken from their different implementation and learned lessons with intention to make it practical for policy makers in low- and middle-income countries. Special attention is paid to the "building blocks" of a well-functioning waste management system, such as reliable data, legislation, institutional frameworks, financing, public communication and participation, management capacity, and operations [6]. As these elements are closely integrated, changes to any one of them results in changes to the others. It is therefore essential that intended sector reforms and changes are assessed holistically, and to the extent possible, with the involvement of all stakeholders. Key considerations and guiding principles to solid waste management roadmap are: [7]

1. Waste management system should be developed in a gradual approach which introduces step-by-step changes, and it should allow the sector to improve and grow naturally without interventions from outside.

2. The primary objective of the waste management system is to establish professional collection and disposal services for the country with full collection coverage in urban areas, substantial or full coverage in rural areas, and proper environmental practices at disposal sites.

3. Landfilling of waste can be an option only if it is a well-established and environmentally friendly when financial circumstances do not allow for costlier alternatives.

4. Once the countries can provide full collection coverage and environmentally disposal practices, they should consider waste separation and recycling as the next step. Moving up the 'waste hierarchy' for waste re-use, recycling, and

recovery should be done only when they have sufficient resources for financing the increased costs that come with such improvements.

5. Recycling of household segregated waste is almost never a profitable activity. Compared to recovering recyclables from households, recovering recyclables from the commercial, institutional and industrial sector are easier to operate and less costly. In order to reduce financial burden of material recovery for public sector, governments should place the burden on the producers and importers.

6. Introducing Extended Producer Responsibility (EPR) to capture recyclables such as packaging waste, electric/electronic waste, end-of-life vehicles, and batteries is an effective instrument meeting the principle of 'polluter pays'. It takes time to develop comprehensive schemes in cooperation with key parties such as manufacturers of consumer products and packaging materials.

7. More advanced technologies for waste management such as mechanical and biological treatment (MBT) and waste to energy (WtE) can increase more financial cost, thus they should be considered only when a society is ready to pay the higher cost for waste service; is technically feasible; and sufficient technical capacity exists.

8. Sufficient financing is essential for running waste management system effectively. However, subsidies are not recommended because it may distort market conditions of the waste management.

9. Private sector may get involvement only if there is sufficient and reliable financing available to the sector, and if the public sector can provide meticulous contract enforcement and supervision of private activities.

10. There should be appropriate legislation for controlling waste management system at national, regional, and local levels, and local authorities should be responsible for actual service delivery and implementation. This requires adequate staffing capacity at all levels.

According to report from World Bank, waste management can be the single highest budget item for many local administrations. In low-income countries, it comprises 20% of municipal budgets, on average [8]. However, it is worth for investing in sustainable waste management system because the country will have to spend much higher cost on addressing health and environmental problems than the cost of developing and simple, adequate waste management systems.

In 2014, total municipal waste produced in Japan was the approximately 42 million tons. The most common methods for the treatment were incineration and recycling which about 80% is treated by incineration and about 19% is recycled, and only 1% is landfilled. The municipal solid waste management (MSWM) flow in Japan for financial year 2014 is shown in figure 2. The rates of intermediate treatment methods other than incineration consists of large article treatment (30.7%), composting (3.0%), feedstock making (0.1%), anaerobic digestion (1.0%), waste-to-fuels processing (11.6%), and others (53.5%) [9].
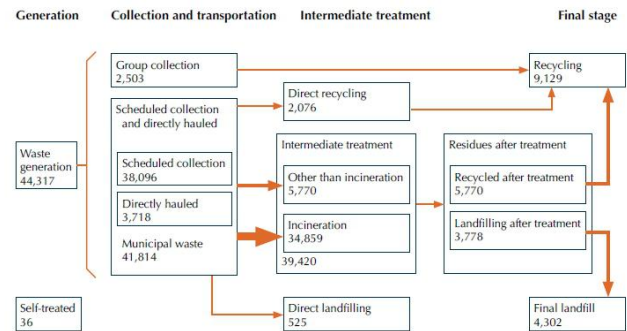
Figure 2. Flowchart of MSWM treatment in Japan in FY2014 [10]

When waste crises arise, it is generally the case that only two waste management options are proposed: bury or burn. But both landfills and incinerators require huge financial investments and offer a payoff that includes wasting and polluting. Zero waste invests in resource conservation; its payoff is the prevention of future waste crises, among other worthwhile benefits (e.g., more jobs, less pollution). There is no single correct way to start a zero waste program, because it must be tailored to the unique locality where it will be implemented. Thus, zero waste will not happen overnight. Especially when there is no system of materials separation already in place, being patient and consistent in starting a zero waste plan is extremely important. In many places, new government administrations bring new programs for waste management that are not sustained over time. The 'Basic Act on stablishing a Sound Material-Cycle Society' establishes a vision for a sound material-cycle society that consumes fewer natural resources and causes less environmental impact. At the same time, the law specifies the order of priority in the management of recyclable resources along the waste hierarchy as (1) reduction of generation, (2) reuse, (3) recycling, (4) thermal recovery, and (5) appropriate disposal [11].

Singapore has shown how economic growth, environmental protection and social inclusion can go hand in hand to build a sustainable Singapore. But it is facing new challenges because its limited resources are increasingly strained by rising consumption from population growth and rapid urbanization, which contributes to more waste. It is still a challenge for Singapore to promote economic resilience to ensure the future Singapore economy by overcoming carbon and resource constraints. The Masterplan will lay out

Singapore's strategies to build the resilience and want to move towards a circular one that reuses resources endlessly. (as figure 3 below) To achieve these targets through sustainable production and consumption and transforming trash into treasure, sustainable consumption needs a change in mindsets and behaviors. Singapore scheduled 2019 as the Year "Towards Zero Waste" to raise a national awareness of the environment protection. The Government will support industry transformation and the upskilling of its workforce to create new economic opportunities for local companies, and good jobs for Singaporeans [12].

Figure 3. Singapore Zero Waste Masterplan [13]

In Thailand, Master Plan for waste management 2016-2021 was approved by the Prayut government in May 2016. It includes a series of new waste management policies with the commitment to replace open dumping sites and improper waste treatments with sanitary landfills and incineration; and to rehabilitate many existing open dumping sites. Also, Pollution Control Department (PCD) under the Ministry of Natural Resources and Environment (MONRE) also provided guidelines for Local Administration Organizations (LAOs) to manage 77,000 tons of untreated MSW within the year 2019 [14]. To achieve this plan, however, there are several challenges ahead such as lack of financial and technical supports for local governments and inadequate staff for operation. It also requires national and local political commitment to work on specific national and local solutions, and it needs contribution of everyone in the society.

Thailand generates a large amount of municipal waste, at about 27 million tons each year year [15]. Municipal waste generation in Thailand is 1.05 kg. per day as of 2016, which comes in fourth place among ASEAN countries after Singapore, Brunei and Malaysia [16]. Out of the 27 million tons, 76.23% is collected in collection areas, 17.65% is recycled, and 31.06% is properly treated, while 26.63% is improperly treated. Of the 31.06% of the properly treated MSW, 25.66% goes to landfills, 1.52% is incinerated, while only 1.82% is composted. The composition of MSW is mostly (1) Food/Organic waste 64%, (2) Paper 8%, (3) Plastic 17.6% and (4) Metal 2% [17].

To tackle the waste problems, Thai government, along with several private companies and organizations, aim to turn Thailand into a 'zero-waste society'. Besides policy, regulatory framework, programs, and plans for zero waste management, the Department of Environment Quality Promotion has issued a 'Mission Zero Waste' educational booklet for use in schools. It provides helpful suggestions for ways that youngsters can contribute to the zero waste by reducing, reusing and recycling their waste. The department has also introduced a 'Zero Waste Community' award for villages that are able to significantly reduce the amount of waste that they produce. The turnout is satisfactory; in 2017 over 700 villages entered the competition, which was won by two villages in Buriram Province in the country's northeast [18]. In order to reduce their waste, the villagers separated and recycled all their plastic, paper and glass, and turned their organic waste into fertilizer and organic insecticide instead of using chemicals on their farms.

It can be seen that one of significant contributions to zero waste management is the awareness and cooperation from households and people in communities because it can contribute to waste reduction and higher recycle rate as well as it can be a key factor of enhancing eco-friendly and sustainable productions in the business sectors. To raise the awareness and cooperation, there is a need to develop educational programs and a policy framework to promote the understanding and awareness of the local residents.

III. Mindful Consumption for Sustainable Waste Management

The increasing waste amount and problems nowadays primarily are caused by mindlessness, an automatic mental processing which leads us to make decisions and do things routinely and automatically [19]. Many of us are not aware that our daily actions are unsustainable and lead to environmental problems, such as dumping all trash into one bin, and throwing out unfinished food that accumulates on landfills and produces greenhouse gases. On the contrary, mindfulness leads us to more eco-friendly and sustainable actions. It extricates us from automatic thoughts and become more open to behavioral change [20].

Mindful consumption is a concept based on Buddhism's right mindfulness. Buddhism cannot avoid facing the problems of modernity, thus, it should reflect on how exponentially increasing consumption in modern world significantly violate human wellbeing and environmental sustainability. In modern world, people view consumption as a life process for satisfaction, for example, they feel happier living in a bigger house than in a smaller house, even it takes up a heavy mortgage [21]. Most Ven. P. A. Payutto [22] also draws attention to the teaching of the two kinds of wanting,

tanhā and chanda, both of which have a fundamental role in consumption. Tanhā means desire for pleasurable objects and chanda means striving for well-being and need fulfillment. Tanhā could be called never-ending want, while chanda is the aspiration for right and skillful. Consumption driven by tanhā can lead to more obtaining and excessive possession, while consumption driven by chanda brings satisfaction of life's basic needs, which contributes to well-being and forms a solid basis for the further development of human potentialities [23]. Besides, mindfulness help individuals recognize the impact of their consumption on others and the environment.

Individuals who make their consumption choices with mindfulness are able to respond their basic needs and bring a better quality of life. They care not only for their own wellbeing, but also for others, their community, and the environment. They will engage in waste prevention through their moderate consumption behavior. They also participate in source separation, reuse, and recycling programs as they realize that conserving environment and reducing the use of natural resource over the life cycle of the service and products can lead their lives more sustainable. (Figure 4) However, the way of living in our society is likely following the pattern of that individuals participate in conspicuous consumption. The younger generations also grow up in this spending and consuming environment which makes it harder for us to find our way out of it.

Figure 4. Zero Waste Management through Mindful Consumption for Sustainable Waste Solution

Changing the consumption patterns following this approach is a challenge for today's society which is following

capitalism. Industries are trying to encourage consumers to spend as much as possible on their products and services, such as those that manufacture products. Whether it is a food product or personal items, they are trying to produce the packages with beautiful colors and patterns and make it is easy to carry and for single use. That is only to add value to their products and attract the attention of consumers. But it is creating a lot of waste for the community. Therefore, consumers should stay mindful and consider what is necessary for their living, and what is superfluous or excessive and creates waste. One must be aware of how much is enough in the case of life's basic needs [24]. Right Mindfulness is one step in the Noble Eightfold Path, which is guided by Right Understanding and Right Thought. Applying mindfulness in consumption, an individual can eliminate simplistic thinking, the most serious problem of modernity, which leads them to spend just to respond to their requirements without thinking of the impacts to the environments. Practicing mindfulness in consumption, we can reduce a lot of waste, facilitate environmental preservation, and minimize the ultimate environmental impact of consumption which inline with zero waste management and leads to sustainability.

CONCLUSION

A zero-waste strategy needs to ensure everyone has access to tools to reduce, reuse and recycle waste where they live, work and play. This will let individuals to participate in saving the environment. It helps protect the health of communities by reducing pollution in the air, water and soil by keeping toxics and waste out of landfills and incinerators. With help of the waste hierarchy as a practical framework in the Action stage, consumers substitute previously consumed products with zero-waste alternatives and invest an intensive amount of time into grocery shopping, the preparation of food and personal care products, the reuse and recycling as well as the preparation of zero-waste utensils. Although it is nice to have had a Zero Waste road map or plan in place from the beginning, we should not trade the small victories, some defeats and failures, education, support and mentoring for a pre-structured plan. What we learned is that we must be able to adapt to the barriers and other challenges along the way.

Right mindfulness, one step in the Noble Eightfold Path of Buddhism, is guided by Right Understanding and Right Thought. Buddhism cannot avoid facing the problems of modernity, thus, it should reflect on how exponentially increasing consumption in modern world significantly violate human wellbeing and environmental sustainability. It can also influentially shape the framework of responsible consumption with recognition of self, social, and environmental wellbeing. As leading a life in accordance with the mindfulness, we can moderate our consumption and

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recognize how much is enough, thus we will minimize amount of waste at source, and we will contribute to reduce, reuse, and recycling in order to achieve the goal of zero waste. With the guiding principles to solid waste management and mindful consumption, we can ensure a sustainable and healthy environment for future generations.

With care of self, social, and environmental wellbeing, individuals can play a significant role in contributing to zero waste scheme. They will take part in waste prevention through their moderate consumption behavior. They also participate in source separation, reuse, and recycling programs as they realize that conserving environment and reducing the use of natural resource over the life cycle of the service and products can lead their lives more sustainable. Such lifestyle is determined as a journey and constant improvement process, in which individuals must maintain their behavior change through their routines while undergoing a constant process of improvement in their actions. Mindfulness will disengage them from their over consuming routines and help them become more open to behavioral change. With progressive confidence in the lifestyle, individuals can transfer zero-waste efforts to more areas of their life and increasingly impacted their environment. It is merely that we need to recognize the truth of our power to create a better world for ourselves and future generations.

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Consumption based on Mindful Mindset: A Solution to Plastic Pollution

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Abstract—

Plastic pollution is one of the most visible problems in many regions, especially in developing Asian and African countries, which lack of proper garbage collection systems. Everyone in societies need to work together in dealing with plastic pollution. The purpose of this article is to examine how plastic pollution effects human and environmental well-being, to study the influence of mindfulness on consumption behaviours, and to explore how mindful consumption contributes to the reduction of plastic pollution and brings ecological sustainability. Documentary study and literature review were used for data collection. Plastic pollution has become one of the most serious problems around the world, especially during the spread of COVID-19 due to the increase of single-use plastic waste. Results showed that plastic pollution causes many major long-term effects to human and ecosystem including the food chain changes, contagious diseases and respiratory diseases, polluted land, water, and air due to toxic chemicals residue. With mindful mindset, individuals will have a sense of caring and thinking about the future and the consequences of their actions towards themselves, community, and nature, so they behave and make decisions with the aim of increasing a consumer's personal, economic, and social well-being to an optimal level. Mindful consumption, consciousness in thought and behavior about the implications and consequences of consumption, is a consumption framework guiding consumers to make their choices with the care of self and community while conserving environmental, personal and economic well-being. Thus, mindful consumption can be considered as sustainable consumption pattern and it can make a great contribution to reduction of plastic pollution and sustainable development.

Index Terms— *Mindful Mindset, Mindful Consumption, Plastic Pollution, Sustainable Consumption*

I. INTRODUCTION

Global growth is set to continue. Plastics consumption increases as economies develop and begin using them in a range of products and consumer goods. Our analysis suggests that by 2050, global plastics production would double to over 800 million tonnes per year. If made with today's fossil feedstock, global plastics production would then require 900 Mt of oil per year, more than the European Union uses today, and 23% of total global oil use in a 2°C scenario [1]. By the end of the century, plastics consumption would need to rise further, to 1345 million tonnes per year, more than four times today's levels. By any measure, plastics therefore are a major determinant of future fossil fuel use and hence also of carbon dioxide (CO2) emissions [2].

In many developing countries, especially those in Asia and Africa, plastic pollution is one of the most visible problems due to lack of proper garbage collection systems. But the developed world, especially in countries with low recycling rates, also has trouble of improperly collecting discarded plastics. Plastic waste, thus, has become such a widely spread problem that there are urgent need to write a global treaty negotiated by the United Nations. It has become one of the most pressing environmental issues, as rapidly increasing production of disposable plastic products overwhelms the world's ability to deal with them.

Plastics is the problem not only for municipality officials, region administrators, or our government, but it is the problem for everyone to look into and ask, "Hmm, what can I do about this problem?" That means everyone in societies should consider and work together in reducing plastics consumption, plastic waste, and plastic pollution by thinking it over before buying or using plastics. To always stay aware of plastic problems means one needs to be mindful of the plastic problems before making decision on buying, using, or

throwing away plastic items. Consumption with mindfulness or mindful consumption is in the essence of consumers will become more mindful about what they buy, why they are buying it, how it was made and whether it causes waste and pollution to our communities. Mindfulness, when being applied to consumption habits, can be an effective tool in dealing with plastics pollution.

II. PLASTIC POLLUTION

Plastics have changed our world. In our society, plastic has been used in various types of products from fresh food packages for keeping freshness and hygiene to essential uses like medical supplies, automation and electronics. However, plastics usage has exploded at such a rate that the infrastructure needed to manage its waste has not kept pace. This is our biggest challenge and it is a serious and complex issue which no one can solve alone. It is a journey that will involve everyone in every community to work together to end plastic waste in the environment.

Plastics provide us great deal of benefits for health, safety, and they are used for improving living quality around the world in both developing and developed countries around the world, but it is unwanted for in our environmental systems; land, rivers, seas, and oceans. Plastic production has been increasing by over 400 million tons 65 years, from 1950-2015. And by 2050, it is expected to be double [3]. In each year, about 8 million tons of plastic wastes are released to the oceans. It can cause significant harm to the environment in the form of polluted air, water, and land due to its content of toxic pollutants.

It is obvious that this amount of a material which does not break down rapidly can ruin the natural environment. It will lead to long-term issues for plants, animals, and people. Plastic pollution causes many major long-term effects including the Food Chain Changes. It affects the world's tiniest organisms such as phytoplankton and zooplankton, which together form the base of oceanic food chain. When these organisms become poisoned due to plastic ingestion, this causes problems for the larger animals that depend on them for food. Microplastics can also accumulate in fish, birds and other marine life. As microplastics can take over 400 years to break down, their amount in the sea and sea animals will continue to accumulate, making the problem worse over time.

Plastic pollution is also linked to human well-being. Plastic debris results in a loss in recreational value (e.g. through beach litter), potentially depleting psychological restoration of humans in natural environments. In this regard, behavioural studies have shown that marine litter can undermine the psychological benefits normally experienced at the coast. More direct impacts on human health and safety may occur via accidents resulting in costs for medical treatment. In terms of pest control, it is well known that plastic litter provides breeding sites for pathogen-transmitting insects, therefore facilitate the spread of diseases, for instance, dengue virus, for instance. Moreover, plastic pollution inflicts a loss on the intrinsic value of nature, thus depletes important cultural services provided by an ecosystem. Eventually, this also touches on larger moral issues concerning the relationship between societies and the environment [4].

III. THE EFFECTS OF PLASTIC POLLUTION ON HUMAN HEALTH

Plastic pollution can lead to many health hazards, including physical, chemical, and biological factors that can have negative impacts on our health in short term and long term. For many years, plastic has accumulated and releases harmful chemicals, and it breaks down into small pieces causing extreme discomfort to the animals. Bio-accumulation of plastic inside animals is one of the most recent effects of plastic pollution as it. After their death, the body might decompose but the plastic fragments may remain as a threat to other animals. Besides, blockage due to plastic accumulation may form shelters for the breeding of mosquitoes and other harmful vectors insects, which might cause numerous diseases in humans.

Improper plastic disposal, burning, is also another significant factor leading to contamination of the atmosphere because toxic chemicals are released into the air, leading to air pollution. Burning process requires laborers, who are at the risk of developing skin and respiratory problems due to inhalation of recycling toxic chemicals. Plastics are also carried by wind and deposited from one place to another, increasing the land litter. It also gets stuck on fences, trees, towers or buildings and any animal might get tangled and suffocate to death.

All over the world, tiny pieces of plastic, either particles, fibers, or microbeads have flowed into the rivers and oceans, getting into marine and freshwater lives. Scientists have found microplastics in 114 aquatic species [5]. They are trying to determine what that means for human health. So far science lacks evidence that microplastics are affecting fish at the population level. Our food supply doesn't seem to be under threat, but enough research has been done now to show that the fish and shellfish we enjoy are suffering from the omnipresence of this plastic. Over 5 million tons of plastic flow from coastal areas into our oceans [6].

There are several negative health effects of breathing microplastics in human relating respiratory system including coughing, mucus production, damage of lung tissue, asthma, even cancer. The tiny particles of microplastics once inhaled

into lungs, they cause injury in the respiratory systems. These particles, especially the smallest ones, can also flow into the bloodstream and cause cardiovascular and cerebrovascular diseases, which possibly cause cancer and affect the human immune and nervous system. Microplastics found in lung tissue show the inability of the body to get rid of all particles which means microplastics are bio-persistent [7].

How can plastic enter our body? There are five possible ways that plastics can get into our body and ruin human health.

1 We eat plastic contaminated seafood

The United Nations Food and Agriculture Organization stated that people are likely to consume negligible amounts of microplastics contained in seafood. However, there is concern about the human-health impacts of marine plastics. It is quite clear that this cannot possibly be a good addition to our diets. As we consume more and more contaminated seafood every day, this plastic pollution can affect our health as toxic content in plastic, such as lead, cadmium, and mercury will damage our body organ functions.

2. We consume plastic via packaging

BPAs are present in many plastic objects that come in direct contact with food, including plastic packaging, kitchenware and the inner coatings of beverages. BPA is metabolised in the liver to form Bisphenol A and it exits our body through our urine. BPA has been found in the urine of 95% of Canadians. The main problem is that BPA is an endocrine disruptor. The human endocrine system regulates a number of essential body functions including metabolism, heart rate, digestion and fertility.

3. We drink microplastics via bottled water

The World Health Organisation (WHO) published research in 2018 which exposed the presence of microplastics in 90% of bottled water which had been tested, only 17 were free of plastics out of 259. Today while there is not enough evidence on the impact of microplastics on human health, most scientists agree that it is an emerging area of concern and that if thousands of species worldwide are dying because of it, it can't be that good for us either.

4. We absorb plastic through our clothes

According to the Global Apparel Fiber Consumption studies, out of 100,000 kg of fibers consumed worldwide in each year, 70% are synthetic. Synthetic fibers such as nylon, polyester, rayon spandex, acrylic, and acetate are derived from petroleum and are a type of plastic. Synthetic fabrics, accounting for about 60% of the material in our clothes worldwide, can release harmful toxic chemicals, such as silicone wax, heavy metals, and flame retardants, to our skin. Our skin is the largest and most permeable organ in our bodies and can absorb up to 60% of the substances we put in

direct contact with it. Furthermore, synthetic fabrics do not allow skin to breathe and acting as a perfect environment for bacteria to grow. Toxic chemicals and microplastics released into waterways and ocean through our washing and household water waste also lead to plastic pollution in a subtle but expansive way. It is possible that a single load of laundry could release up to thousands of microfibers from our clothes into the water supply.

5. We breathe plastic

In the area where the waste management is ineffective or not existing, people often have no choice but to burn their trash in the open air. This common practice can be a great source of toxic fume which is released into the air and damage our respiratory system. A report in 2018 shows that 5 billion people globally live without waste collection or controlled waste disposal. Thus, most of waste goes to incinerators which has been proved releasing dioxin, one of the most toxic chemicals, in huge amounts into the air. Its residue, toxic ashes, can form in toxic ashes that can leak into land, water, and air.

Human health impacts of plastic have focused on specific stages in the plastic lifecycle, usually on single products, processes, or exposure pathways. This approach fails to recognize that significant, complex, and intersecting human health impacts occur at every stage of the plastic lifecycle, from waste management to ongoing impacts of microplastics in the air, water, and soil. A solution to the plastic crisis must address the full lifecycle [8]. (see figure 1)

However, plastic bag bans imposed by many governments witnessed a fall in plastic use. All countries claimed to have achieved or gotten closer to reaching their waste reduction goals but the impact of these bans does not end with the measurable reduction in plastic circulation. These alternatives ensure a fall in plastic pollution but affect other forms of environmental damage. Essentially, they replaced plastic with plastic. Although this alternative is likely to have a higher lifespan, it will still contribute to the plastic problem in the long-run because of its ineffective recycling system. Additionally, a majority of the bans have been imposed without a sufficient notice period. Thus, we cannot say that the plastic bag ban is one of the most effective solutions to plastic problems.
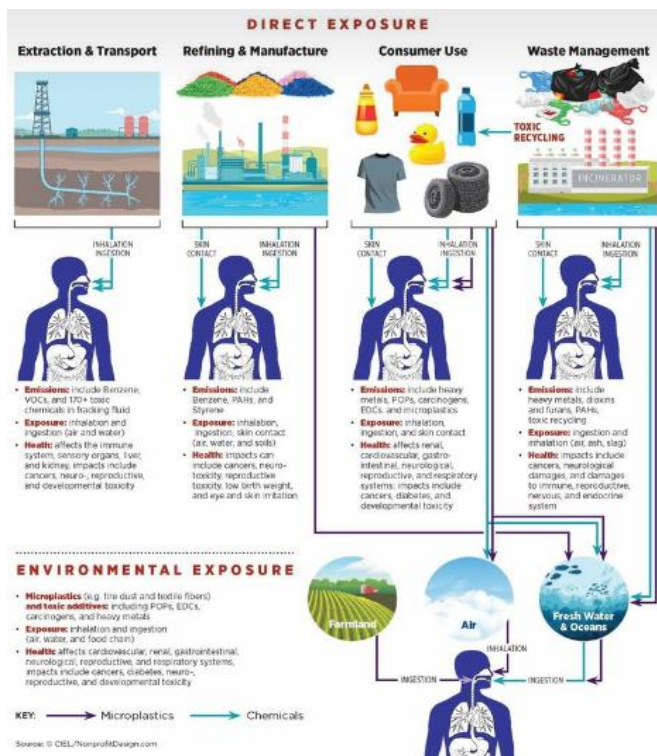
Figure 1. How humans are exposed to a large variety of toxic chemical and microplastics [9]

IV. MINDFUL MINDSET

Mindset and mindfulness have been talked about greatly among those in education. Mindset is a set of belief introduced by Carol S. Dweck, which affects how one thinks, feels, and behaves. It is habitual ways of thinking. According to Dweck, people with growth mindset believe they can make change and achieve their goals in study, work, or relationship. On the contrary, those with fixed mindset believe that they will never make things better nor achieve their goals. For short, mindset refers to belief one has about oneself and his potential [10].

Mindfulness refers to active attention to one's present thought, feeling, body sensation, and environment [11]. In other words, mindfulness can turn one into an observer of one's own thought and belief about oneself, others, and world which means environment and eco-system. In Buddhism, mindfulness, sati, means to maintain awareness of reality [12]. It also refers to an awareness of things in relation to things and awareness of their relative value [13]. Mindset and mindfulness are valuable framework and they can complement each other in shaping consumer behavior and influencing consumers to make decision with care of themselves, others, and environment.

Mindful mindset can be a conceptual framework that influences consumers to make decision upon their contentment with care of others and environment when consuming. With mindful mindset, consumers will not only care for themselves nor respond only to their desires and needs, but they will make decision which are beneficial for their community and environment [14]. In the dilemma of which traditional goal of corporations is to maximize their profits [15] and the problems of overconsumption concerning limited resources and environmental sustainability have received little attention [16], mindful mindset can play a critical role in mediating between overconsumption and ignorance of environmental sustainability. Mindful mindset will promote awareness of environmental conservation and reduce the degree of overconsumption. Thus, consumption with mindful mindset can lead to sustainability.

V. MINDFUL CONSUMPTION

Consumption is known as a driving force of the global economy, however, it rests on the use of the natural environment and resources in a way that continues to have destructive impacts on the planet [17]. Although there is some concern about environmental problems and people are likely to buy more green products as they believe they are taking part in minimize environmental problems and bringing more sustainability, they may never realize that too much consumption can cause problems. Even their purchase becomes more eco-friendly, constantly rising in consumption could bring harm to the environment at the level that violates the sustainability [18]. Excessive consumption, mindlessly consuming without awareness of problems, can be the root of waste and pollution generation, decline of natural sources, and unsustainability.

Mindful consumption, consumption based on mindful mindset, is considered as a new wave of consumer behaviour. Moreover, as many societies are increasingly educated and financially sophisticated, they have the potential to further the trend of mindful consumption in everyday living while, at the same time, contributing towards sustainable future. The idea of mindful consumption derives from a mindset of awareness and attention that reflects receptivity to and engagement with the present moment, including a sense of care toward the self, community, and nature, which reinforces temperance in consumption practices that are both private and public in nature. A focus on mindful consumption can be valuable in aligning consumer self-interests to be free from unrewarding and unsustainable patterns of consumption. Mindfulness has the potential to lead to sustainable consumption by encouraging practices that heighten people's sense of awareness, whereby greater awareness of both the self and the ecosystem. It can serve to dampen the effects of unsustainable practices, such as overconsumption and deviant consumption, thereby fostering more sustainable outcomes [19]. (as figure 2)
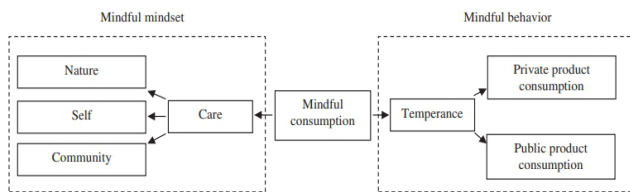
Figure 2. A model for mindful consumption [20]

With care of self, consumers focus on wellbeing and happiness rather than increasing materials. Caring for community, consumers value relationship in their community more than material possession. And caring for nature relates to taking actions to conserve environment and nature. With these practices in mind, consumers will consume moderately, avoid the pattern of purchase-throw away-and purchase again, as well as cease to consume in a competitive or comparing way. Hence, the problems of waste, plastic and other materials, will be solved at root. Mindful consumption can lead to reduction of waste, pollution, and resource extraction as well as promote sustainability. Consumer behavior with respect to sustainable consumption practices can be explained in a combined application of responsible consumption, anti-consumption, and mindful consumption theoretical perspectives in an integrated conceptual model for sustainable consumption [21]. (as figure 3).
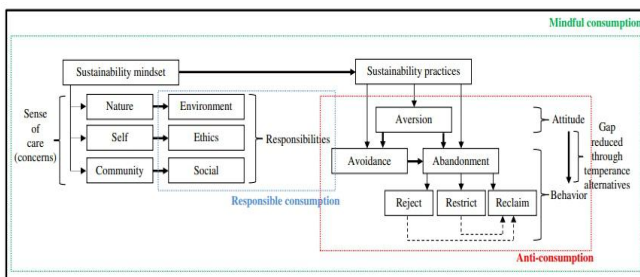
Figure 3. Integrated model for sustainable consumption [22]

Consumption has emerged as a key priority area in research and policy-making related to sustainable development. It is essential to understand mindful consumption concept as consciousness in thought and behavior about the implications and consequences of consumption. The main elements of mindful consumption are mindful mindset and mindful behavior [23]. Mindful mindset comprises a sense of caring and thinking about the future and the consequences of one's actions toward oneself, community, and nature, while mindful behavior involves behaving and making decisions with the aim of increasing a consumer's personal, economic, and social well-being to an optimal level. The major of the world's population often experiences underconsumption or overconsumption and its negative effect on personal and social well-being.

One of the earlier conceptual proposal on how mindfulness might be able to contribute to sustainable consumption comes from Rosenberg who sees a twofold contribution of the cultivation of mindfulness: By enhancing awareness of "potentially accessible cognitive-behavioral processes underlying consumption that have become relatively automatic" [24]. Mindfulness would allow for more deliberate choices. Additionally, mindfulness might re-instill a sense of interconnectedness and interrelatedness between people as a genuine (or synergetic), non-consumerist satisfier of the need for fulfillment. Mindfulness might be a supporting factor in achieving greater personal well-being and more ecologically sustainable lifestyles at the same time. More recently, there has been a discussion on how mindfulness could change our consumption patterns and it is agreed that mindfulness could positively influence consumers' awareness of their own consumption habits and strengthen non-materialistic values in life, leading to reduced aspirations to consume.

CONCLUSION

From 1950 to 2015, primary and secondary (recycled) plastic waste was cumulated to 6,300 Mt. Around 4,900 Mt, 60% of all plastics ever produced, were discarded and are accumulating in landfills or in the natural environment. Research into the environmental impacts of these microplastics in marine and freshwater environments has accelerated in recent years, but little is known about the impacts of plastic waste in land-based ecosystems. Many governments, especially in developed countries, are striving for well-designed and tailor-made management strategies to solve plastic waste and pollution problems. Strategies, such as substitution, reuse, material recycling, waste-to-energy, and conversion technologies have been adopted, but none of them completely overcomes the environmental challenges posed by the enormous and sustained global growth in plastics production and use.

Although the plastic bag bans managed to achieve their targets and there is more eco-friendly consumption today, constant rise in consumption could bring harm to the environment at the level that violates the sustainability. Hence, preventing plastic waste before it is generated could be considered as a practical way to plastic waste reduction. Mindful mindset, a conceptual framework, will influence consumers to make decision upon their contentment with care of others and environment when consuming. Mindful mindset can play a critical role in mediating between overconsumption and ignorance of environmental sustainability. It will promote awareness of environmental conservation and reduce the degree of overconsumption which leads to waste generation.

With care of self, others, community, and nature in mind, consumers will consume moderately, avoid the pattern of purchase-throw away-and purchase again, as well as cease to consume in a competitive or comparing way. Hence, the problems of waste, plastic and other materials, will be solved at root. Mindful consumption can lead to reduction of waste, pollution, and resource extraction as well as promote sustainability. Mindful consumption can play a critical role in reducing waste at source in this challenging time. When individuals realize that they can take part in minimizing plastic pollutions and contribute to sustainable environment, our communities, regions, and world can be more sustainable for the next generations

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Sufficiency Economy Philosophy for Sustainable Food

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Abstract—

Ending hunger, achieving food security, and promoting sustainable agriculture are the goals to be achieved by 2030 according to Sustainable Development Agenda. It aims to achieve the goals through increasing the agricultural productivity and incomes of small-scale food producers which include indigenous peoples, family farmers, pastoralists and fishers. The purpose of this article is to study causes of global hunger and SDGs Goal 2 for the guidelines of ending hunger and to suggest an aligning principle of Sufficiency Economy Philosophy for solutions to hunger. Documentary study and literature review were used for data collection. It is found that Sufficiency Economy Philosophy (SEP), consistent with the SDG2 goal, has produced many best practices for the past two decades. It suggests the model of small farm management under "New Theory" based on Sufficiency Thinking. It provides guidelines for farmers to divide their plots into four sections under the 30:30:30:10 formula for integrated farming. This basic model can be modified to suit different geographical conditions and farm sizes, but it requires farmers to live their life with moderation, respect for, recognition of local knowledge and local management of natural resources. It can be a means to improve the quality of life in rural areas, ensure enough food for present and future generations, and generate sufficient income for farmers. Apart from gaining year-round food security from integrated farming, farmers eventually become debt-free and end hunger.

Index Terms— Sufficiency Economy Philosophy, The New Theory, Sustainable Food, Zero Hunger, Sustainable Development Goals: Goal 2

I. INTRODUCTION

While the global economy is slowing down and getting worse by the spread of COVID-19, the level of food insecurity and hunger have globally been increasing, which millions of children are suffering from malnutrition. In 2019, 25.9% of world population, about 2 billion people, were affected by moderate or severe food insecurity, which increased from 2014 by 22.4 %. Those who are facing severe food insecurity, around 750 million people, tend to run out of food and, at worst, go a day, or days, without eating. it is a big challenge for every country to eliminate and achieve food security. However, eliminating hunger alone will not ensure that everyone has access to sufficient nutritious food. To alleviate the world hunger and promote food security, countries need to take immediate action to ensure trade flowing, to strengthen food supply chains and to increase agricultural production. Another cause of world hunger is the worsening situations in sub-Saharan Africa and Latin America. Along with conflict, climate shocks and the locust crisis, COVID-19

poses an additional threat to food systems, indirectly reducing purchasing power and the capacity to produce and distribute food, which affects the most vulnerable populations. In 2020, it also causes up to 132 million more people suffer from undernourishment [1].

The 2030 Agenda recognizes that we can no longer look at food, livelihoods and the management of natural resources separately. The emphasis on rural development and investment in agriculture such as crops, livestock, and fisheries can be powerful tools in eradicating poverty and hunger, and bring about sustainable development. Achieving SDG2 will need commitments, sacrifices and behaviour changes from all of people, but by working together, we can make history and become the Zero Hunger generation [2].

Likewise, the Sufficiency Economy Philosophy's central goal is to alleviate poverty and hardship. It focuses on human wellbeing rather than wealth which leads to sustainable development in long term. It also emphasizes human security, concentrates on building people's capabilities, and

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promote self-reliance. Additionally, the model of small farm management "New Theory" based on Sufficiency Thinking was introduced to farmers to divide their plots into four sections under the 30:30:30:10 formula with the aim to achieve food security and farm productivity.

II. CAUSE OF HUNGER AND SOLUTIONS

There are many causes leading to shortage of food. Even in places where food is plentiful or can be grown, challenges like disasters, conflict or poverty prevent people from accessing it. People in poverty spend the most of their income on food for their families before fulfilling other basic needs or financing long-term goals. In a case of emergency, like illness, they may have to skip their meals and spend the money they have on such emergency. And that make the cycle of hunger begins. (as figure 1) Hunger can also stem from inadequate food systems, like a lack of road infrastructure to connect people to markets, or poor storage facilities, through which food gets wasted before reaches those who need it.

Figure 1. The cycle of hunger [3]

Hunger is the painful sensation caused by lack of food. people who get less than 1,800 calories of food per day is considered undernourished. The problem of hunger can include malnutrition, both undernutrition, meaning lack of energy and essential nutrients, and overnutrition, caused by unbalanced diets. Food insecurity concerns food availability, food access, and food utilization [4].

The most frequent cause of world hunger is climate change. Drought, floods, and heavy storms cause unexpected and sudden destruction leading to poverty and hunger as they damage farmland and agricultural area, especially small ones. Improper agricultural practices, such as over cropping and deforestation, can bring drought and damage soil quality leading to unproductive farming. War can be the most serious cause of poverty and hunger because it violates food access and food security. People will suffer from violence, lack of infrastructure, decreasing income, and even fleeing

from their home [5]. According to studies, world hunger causes over a hundred million children to be underweight and one-third of children in a developing country have their growth stunted. And over nine million people, five million of which are children, die from hunger and malnutrition [6].

Million of people around the world living in poverty cannot afford food at all or cannot access to nutritious food leading to hunger or malnutrition. Simultaneously, people living in hunger and malnutrition cannot perform their job or live their life happily. Thus, poverty and hunger are interconnected and they lead to an array of problems including social, political, and health. People living in poverty and hunger normally don't have appropriate care practices and lack of access to clean and safe environment, health services, and education. Their circumstances can be worse in the case of political and social conflicts and climate changes. In countries dependent on primary-commodity export revenues, especially agricultural products and oil, there may be shortage of food supplies when the two countries have political conflicts. Drought and storms can also exacerbate food insecurity. Thus, people living in poverty will find it more difficult to access to food. Government officials and organizations fighting with hunger and poverty must take these factors into their consideration when planning and establishing their policies and operational framework in order to improve access to safe, nutritious and sufficient food for all and alleviate food insecurity and poverty. Special attention is also needed to increase the agricultural productivity and incomes of small-scale food producers, implement sustainable agricultural practices, and ensure the proper functioning of markets to ensure that no one is left behind in hunger and poverty.

The eradication of hunger and poverty are major targets of the SDGs, which were approved at the 70th Session of the United Nations (UN) General Assembly in September 2015 [7]. Eliminating hunger is a UN system-wide priority and the centrepiece of the Zero Hunger Challenge promoted by the UN Secretary General's High-Level Task Force on Global Food and Nutrition Security (HLTF). Governments in various regions have responded to the call of the UN Secretary-General and have committed to eradicating hunger and poverty. To achieve zero hunger by 2030, governments and the international community need to build on approaches that have already proved effective, which combine three important elements: [8]

1. Promote more access to basic food and other needs, and enable more diverse and healthier diets that allow hungry people to receive sufficient nutrients, vitamin, and minerals

through social protection programs which will help them become healthy and be able to engage more productively in economic.

2. Increasing incomes by creating more job opportunities for the poor and hungry and promote more investments in agriculture production, infrastructure, market opportunity, knowledge generation, and information and communication technologies.

3. Ensuring sustainability by promoting the sustainability of food systems, conserving natural resources and adopting sustainable agricultural practices to ensure the food security of future.

To eliminate hunger and extreme poverty, it requires social protection measures and targeted pro-poor investment to develop productive activities. It also requires social protection programmes to support smallholder farmers and other poor households in overcoming financial constraints and in better managing risks which, in turn, strengthens their capacity to invest. To achieve the goal of zero hunger by 2030, governments must find collaboration from private enterprises, local organizations, and local people to design and build up practical strategies for effective implementation and ensure long-term access to food and provide better living conditions for the poor and hungry.

III. SDGs: Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture

The aim of SDG Goal 2 is to sustainably end all forms of hunger and achieve food security by 2030. It targets all the hungry in all regions must have sufficient nutritious food to stay healthy and be able to perform their work and enjoy their living. To achieve this, governments in all regions must provide better access to nutritious food and promote sustainable agriculture. That means there must be practical plans and strategies to improve productivity and incomes of small-scale farmers through providing equal access to land, technology and markets as well as sustainable food production system and flexible agricultural practices. In developing countries, international investment must be required to enhance productive capacity.

There is some progress in hunger eradication. The number of undernourished people around the world decreased from 15% in 2000-2002 to 11% in 2014-2016. However, over 790 million people still lack of regular access to sufficient food. The areas that are facing food insecurity include sub-Sahara Africa with the percentage of undernourished people over 20% and Southern Asia with the percentage of undernourished people over 15 during 2014-2016. An

estimated 26.4 % of the world population, about 2 billion persons, were affected by moderate or severe food insecurity in 2018, an increase from 23.2 % in 2014, owing mainly to increases in food insecurity in sub-Saharan Africa and Latin America. In 2019, 47 million under-5-year-old children or 6.9 % were affected by wasting (low weight for one's height) or acute undernutrition, or a condition generally caused by limited nutrient intake and infection [9]. The main causes of this food insecurity come from natural and human-induced disasters or political instability. In 2014, there was an estimate of 158.6 million children under age 5 were affected by stunning. Chronic undernutrition can put them into greater risk of common infections and lower their cognitive ability to perform well at schools. Measures to strengthen food production and distribution systems must be taken immediately to minimize the impacts of hunger [10].

Majority of poor people around the world live in rural areas. The direct and indirect sources of their income and food are from agriculture, fisheries or forestry. The main cause of hunger today does not come from lack of food because the agricultural growth in the low-income economies is getting more effective in reducing hunger and poverty. As the agricultural growth in the low-income economies is effective in reducing hunger and poverty, the hunger today is not caused by lack of supply, but because people cannot afford to buy enough food. Therefore, there must be a comprehensive action plan to fight against hunger in rural area. People living in hunger and poverty are found difficult to learn and work effectively, and they hardly can contribute to economic development, human development, environment health and innovation. Achieving the target of zero hunger of SDGs by 2030 needs collaborations from all stakeholders including central government, private enterprises, local administration, and people in the communities [11].

To ensure that poor people in rural areas can have access to nutritious food, sustainable and resilient agricultural practices and efficient agricultural production are essential. Sustainable and resilient practices for agriculture can sustainably promote enough supply while effective agricultural production provides income, employment and food at affordable prices as well as increase foreign exchange from exports. To promote a sustainable agricultural development path, practical and effective plans and strategies are required for improving the quality of life in rural areas, ensuring enough food for present and future generations as well as making sufficient income for farmers. It is necessary to maintain productive capacity and improve productivity for the future without damaging the environment. Moreover, it is necessary to recognize local knowledge and local management practices in conserving

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natural resources and to stimulate the capabilities of present and future generations.

Due to the constant increase of the population in the Asia-Pacific region, the world population is expected to increase by 500 million by 2030. Consequently, the food insecurity situation in various regions will become more challenging. Increasing food production to fulfill food requirement can aggravate resource extraction and damage more natural resources. To get through the challenges, many actions have to be implemented which include establishing social protection system to improve food access, make food system more efficient, diversify rural employment, adopt holistic approaches for smart and conservation agriculture, and build the resilience of rural communities [12]. (Figure 2)

Figure 2. Trends, challenges and priority actions towards Zero Hunger [13]

Since financial crisis in 1997, Thai government started to use the SEP as a guideline for economic development program for the country. Nowadays, there are many SEP prototype villages located all over the country. It is hoped by policy makers that once the practice of SEP has been carried out by the majority of Thai people, Thailand will be able to move forward with high and sustainable economic growth, with minimal risk of failure. The Sufficiency Economy aims to enable Thailand to pursue a balanced and sustainable development of the country during the economic turndown and the coronavirus pandemic. It can lead to sustainable development of firm fundamentals of the Thai society whilst being able to adapt to any unforeseen events, whether an economic crisis, a natural disaster, or a social dilemma. Ultimately, the Sufficiency Economy practices will promote wellbeing of Thai people and sustain food security as well.

IV. SUFFICIENCY ECONOMY PHILOSOPHY AND THE NEW THOERY

The force of globalization has transformed agricultural production of the world and causes excessive agricultural export around the world. That leads to monocropping and loss of crop varieties which has damaged the environment and caused natural resource depletion and soil deterioration [14]. Excessive exports brings big amount of money to the export countries, however, it can increase the shortage of products at home. India, as an example, was the largest rice exporter in 2012, but lots of its people go hungry and live in poverty [15].

Over the course of his reign, King Bhumibol emphasised the importance of sufficiency, which aims to alleviate poverty and reducing economic vulnerability of the poor as well as to empower and strengthen the communities as foundation of the local economy [16]. The philosophy emphasizes that if everyone moderately consumes products/services and is not greedy, the people and their country will prosper. The Sufficiency Economy Philosophy aims to enable Thailand to pursue a balanced and sustainable development of the country, especially during the globalization period. It enhances the development of firm fundamentals of the Thai society and enable people to adapt to any unforeseen events, whether an economic crisis, a natural disaster, or a social dilemma. Eventually, with the practice of the Sufficiency Economy into practice, the wellbeing of Thai people will be improved [17].

Hunger used to be a critical problem for millions of people in Thailand, especially in some parts of the north and the northeast. Today, the problem is moderately found due to the economic growth during the last decades. The living standard people throughout the country has improved. According to the Food and Agriculture Organisation (FAO) of the United Nations, the numbers of Thais struggling with hunger have dropped from 19.8 million in 1990 to 5 million as of 2015 [18]. According to the extensive community-based nutrition programmes and nationwide health campaigns targeting mothers and new-borns, the problem of

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malnutrition has dropped dramatically. The first Millennium Development Goal was to reduce hunger and malnutrition by half by 2015. In July, 2016, FAO honoured Thailand as among the countries which has surpassed this goal [19].

Thailand is recognized as one of the world leading rice-exporters and one of the world's top exporters of seafood. The problem of hunger the country is not caused by lack of food, because of its natural abundance. Therefore, poverty and hunger normally occur when farmers stop producing food for their own consumption but focus on producing for markets which they cannot anticipate what is going to happen. Also, excessive exploitation of natural resources from industries and private sectors destroys the locals' sources of livelihoods [20]. Sufficiency Economy Philosophy recommends producing one's own food before selling the surplus to other for cash. It focuses on returning food security to farm communities over chasing for money and high risks. It emphasizes eco-friendly agriculture which will conserve environment and make people healthier. It also promotes farmers' wellbeing, both mind and body, based on moderation and contentment [21].

Through HM King Bhumibol Adulyadej's on-field research, it suggests small farm management to ensure food security and protect farmers from droughts and debts from fluctuating prices and offers the model of small farm management called "New Theory" based on Sufficiency Thinking. For short, the New Theory suggests farmers to divide their plots into four sections under the 30:30:30:10 formula. Farmers should use 30% of land for a reservoir to ensure year-long water supply for farming, another 30% for rice fields, another 30% for vegetables, field crops, fruit trees, firewood, herbs, etc., and the remaining 10% for residence and livestock areas. (Figure 3) The required size of land to ensure self-sufficiency should be around 10-15 rais (4-6 acres or 1.6-2.4 hectares) [22]. After achieving food security, the second stage of the New Theory advises farmers to get organised to improve their irrigation systems and farm productivity and collaborate each other for better produce, process and market their goods, preferably as co-operatives. They also should share resources to provide welfare benefits to members. Stage Three concerns the establishment of fair trade relationships between local organisations and the private sector [23].

Figure 3. Layout of New Theory Farming System based on Sufficiency Economy Philosophy [24]

The New Theory is a practical model of land and water management, especially for small farms in the natural condition, both in normal times and in crisis. Farmers can define, plan, and implement the farming by themselves according to steps and procedures they have set. The New Theory aims to solve the problem of water shortages and enable farming on limited land in order that they can produce sufficient amount of food for their families and sell the surplus to the markets [25].

There are three phases for agricultural management in the New Theory.

Phase 1: Farmers put their effort to live at sufficient level by producing enough food for their families, living in a good environment, and enjoying good health, through integrated farming on their land which is divided into the three zones as described above.

Phase 2: Farmers are encouraged to organize themselves into groups or cooperatives to conduct various activities in coordination with related government agencies, foundations, and private enterprises. These activities focus on production, marketing, daily living, welfare, education and social and religious affairs. Some examples for the activities relate crop seeds and soil preparation for production, distribution channels for marketing, value-added products for daily living, health insurance and loans for community welfare, scholarships for education. If the community members work together in groups, they will be able to reduce their dependency on external parties, while increasing their bargaining power in the acquisition of production factors and the sale of their produce. Transportation and marketing costs can also be reduced in through economies of scale and production planning can be done for community common benefits [26].

Phase 3: Farmers should build up connections with other organizations and agencies for getting supports in capital, marketing, and energy, in order to expand commercial

activities with better facilities and more channels such as the setting up of rice-mills, community shops, and service stations. They will be provided more chances to learn and have more experience in production, processing of agricultural products, marketing, and even exporting. In this way, farm families can earn more income and live happily, and the community is strengthened. Farmers will learn by doing at all steps and be able to promote sustainable development in their community.

To ensure food sustainability according to the New Theory of Sufficiency Economy Philosophy, government, both at regional and national levels, play important roles in providing guidance, support, and supervision for farmers. Those concerning market functions that can hinder development, such as asymmetric information, imperfect and missing markets, and law enforcement problems, still require government actions. Government can build strong institutions and deepen and facilitate market functions to maximize the welfare of the people under the moderation framework. Policy making should be done with deliberation and caution, and should be subjected to experience and knowledge attainment. Any policy launched should be done with careful evaluation in order to avoid a destructive impact on the economy. In this manner, the economy will be able to withstand crises and shocks from the outside world [27].

All three phases of the New Theory require support and cooperation from outside. The government can get collaboration from private and business sectors in providing some supports to farmers as following:

- Educate and give assistance to small farmers who stay in the state's allocated land how to do integrated farming according to the new theory procedure.

- Guide local organizations and farmers to be able to analyze and draw up their own farm production plan at community level with the technical and information support from the extension agents.

- Encourage farmers' institutions or local communities to reduce the dependence upon external funds and promote rural savings as internal funds, instead. This fund can be used for improving production efficiency, supporting agro-industries towards the production of value-added products. In addition, another fund should be set up to assist farmers and farmers' institutions for marketing aspects.

- Provide services in acquiring planting materials and breeding animals at fair prices for farmers to get start.

- Encourage farmers at household level to increase value of the products and develop a wide variety of product types to meet market demand.

- Collaborate with farmers and local organizations in the establishment of local markets as places for purchasing and selling agricultural products in each locality.

- Facilitate the setting-up of agricultural product storage at local level and encourage the utilization of the existing ones so that the products can be gradually supplied to the markets according to the periodic demand.

This basic model can be applied to different size of farm plots in different geographical conditions. When being supported by the government with cooperation from business sectors, it can be functional and effective model for food sustainability. (Figure 4)
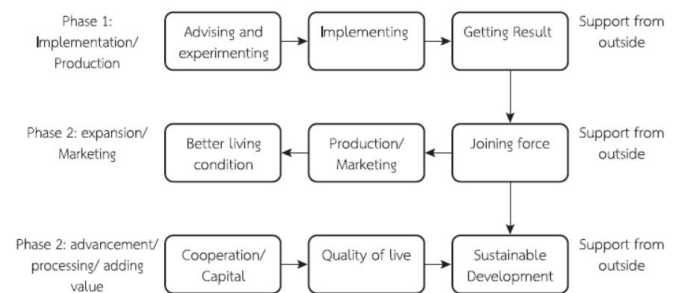
Figure 4. Procedure of New Theory Farming System in Thailand [28]

In the 1960s, monocropping approach, introduced by Green Revolution, was implemented in Thailand and it generated much more income for farmers due to increase in productivity. But disillusionment quickly set in. Toxic chemicals destroy soil fertility and farmers' health while expensive farm chemicals and uncontrollable prices force farmers into debt. Farmers have also lost food security from monocropping. This widespread problems have called for an alternative farming movement to heal the land and bring back self-reliance. The agricultural techniques employed are diverse. Some are engaging in integrated or mixed farming aiming for sufficiency. Other practices include agro-forestry, natural farming, organic farming and the fallow system. Integrated and organic farming based on Sufficiency Thinking, through perseverance and care for the environment, rewards the farmers with soil fertility and food security. HM King Bhumibol Adulyadej's methodical approach to integrated farming through the "New Theory", integrated and alternative farming has become a national movement for sustainable food.

Farmers across the country have managed their plots of land as advised by the New Theory based on Sufficiency Economy Philosophy. Besides gaining year-round food security from integrated farming, farmers eventually become debt-free from selling organic produce and processed organic foods. Many farmers also open their farms as learning centres for other farmers. This agricultural procedure not

only help the farm families to achieve food security, but it also promotes food sustainability at regional and national levels.

Sustainable food and zero hunger can positively impact our economies, health, education, equality and social development. It's the goal of many countries, especially in developing countries. It's a key piece of building a better future for us and for the next generations. Sustainable food and zero hunger can also contribute to less conflicts among people and prevent them from fleeing their homes.

CONCLUSION

Food is the major factor for human wellness. It nourishes human body and prevents people from hunger, so people can perform their job and enjoy they livelihood. Although food is one of the basic necessities of humans, too many people are unavoidably trapped in a cycle of hunger due to forces out of their control, like poverty, disaster, conflict and inequality. The World Health Organization considers hunger as the greatest threat to global health. It prevents people from developing their full potential to work and learn, which can curb their future and make trap them and their families in more poverty and more hunger. Hunger and poverty also can worsen the economy and hinder country development. Therefore, achieving zero hunger is one of the most urgency. A world with zero hunger can positively impact our economies, health, education, equality and social development. For years, Sufficiency Economy Philosophy has proved its benefits in alleviating hunger and improving farmers' living quality. It offers an open, participatory decision-making process whereby everyone has an equal say. People know best their problems, strengths, and constraints. SEP works different development approaches to reach sustainable development goals faster. Thailand's SEP experience is proof that the United Nations Sustainable Development Goals can indeed be attained when we truly believe that people, environmental and future generations matter. Methodical approach to integrated farming through the "New Theory", integrated and alternative farming has become movement for sustainable food. It is an efficient approach to food security, better livelihood, and better future for everyone. Government and private sectors can also play important roles in supporting, promoting, and ensuring the food sustainability.

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Sufficiency Economy Philosophy Towards Poverty Eradication in Thailand

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Abstract—

As of 2015, about 736 million people around the world still lived on poverty. Many of them lack of food, clean drinking water and sanitation. Due to economies shrink around the world and the coronavirus pandemic, millions of Thai people have been left in poverty. The purpose of this article is to examine the causes of increasing global poverty and the rising poverty in Thailand, to study the SDGs Goal 1 and its targets in eradicating poverty around the world, to explore the principles of Sufficiency Economy for poverty eradication and sustainable development in Thailand. Documentary study and literature review were used for data collection. The problems of economy shrink caused interruption in household incomes and consumption growth, and the coronavirus spread made unemployment rate and household debt rise which exacerbated the poverty situation. Results showed that Sufficiency Economy Philosophy (SEP) is an approach for sustainable development which espouses moderation, reasonableness and prudence as development framework based on knowledge and virtue. SEP principles are aligned with the principles and objectives of SDGs, seeking to eradicate poverty and reduce inequality as a means to achieve sustainable development. Applications of Sufficiency Economy Philosophy have proved for poverty eradication and food security which is able to lead to sustainable economic growth and sustainable consumption and production. The philosophy greatly attaches to human development at all levels and emphasizes to strengthen community's capacity to ensure a balanced way of life and resilience.

Index Terms— Poverty Eradication, Sufficiency Economy Philosophy, Sustainable Development Goals : Goal 1

I. INTRODUCTION

Half a billion people, or 8% of the total human population, could be pushed into poverty as economies around the world shrink because of the coronavirus pandemic. It would be the first time that poverty has increased globally in thirty years, since 1990. Poverty levels in developing countries could be set back by up to 30 years [1]. Thai economy is projected to grow by 4.1 % in 2021 and by 3.6 % in 2022, which represents a slow recovery to pre-COVID GDP output levels by mid-2022. It is estimated that 8.3 million workers will be unemployed or lose their income by the COVID-19 crisis, especially those in tourism and service sectors, at risk. The report finds that the number of economically insecure people, or those living below USD 5.5 per day (in purchasing power terms), is expected to double from 4.7 million people in the first quarter to 9.7 million people in the second quarter of 2020 [2].

Thailand has successfully reduced poverty over the past three decades from over 65% in 1988 to under 10% in 2018.

However, the poverty rate in Thailand increased from 7.2 percent to 9.8 percent during the past three years, and the absolute number of people living in poverty rose from 4.85 million to more than 6.7 million [3]. The growth of household incomes and consumption have stalled nationwide in recent years. This has made the poverty reduction in Thailand get reversed with the number of people living in poverty rising. Household debt level to gross domestic product (GDP) rose slightly to 80.1% in the first quarter of 2020, which is the highest level in four years. According to Central bank data, the trend is going to continue as the coronavirus outbreak squeezes the economy and the economy could shrink a record 8.1%. As of March, household debt stood at 13.479 trillion baht ($431.47 billion). The debt to GDP ratio may jump to 88-90% at the end of 2020, which would be the highest in the 18 years [4].

During the hardship in Thailand in 1997 due to the economic uncertainties and risks caused by globalization, the Sufficiency Economy Philosophy has become Thailand's

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development compass. It directs the country with the primary aim to improve people's living conditions and develop the country economy based on the principles of moderation and avoiding redundancy. Particularly, the country advocates good management of risks and appropriate technology with special emphasis on inclusive decision-making, care for the environment, and the well-being of the marginalized people. Thailand's SEP experience is proof that the United Nations' 17 Sustainable Development Goals, especially "Goal 1: No poverty", could be attained when we believe that our people, our environmental and our future generations matter.

II. THE SUSTAINABLE DEVELOPMENT GOALS: GOAL 1

As of 2015, about 736 million people still live in poverty with less than US$1.90 a day. Many of them lack of food, clean drinking water and sanitation. Although millions of people in many countries such as China and India have been lifted out of poverty, the progress has not been even. In some regions such as South Asia and sub-Saharan Africa, 80% of population still live in extreme poverty [5]. The Sustainable Development Goal (SDG) Goal 1 aims to end poverty in all its forms by 2030. It targets to reduce the proportion of men, women and children of all ages who live in poverty at least by half; to implement nationally appropriate social protection systems and measures for all including substantial coverage of the poor and the vulnerable; to ensure equal rights to economic resources, to build the resilience of the poor and those in vulnerable situations; to ensure significant mobilization of resources from a variety of sources; and to create sound policy frameworks at the national, regional and international levels with the aim to end poverty [6].

There have been several agendas and commitments among member states to end poverty. At the Millennium Summit in September 2000, 189 countries unanimously adopted the Millennium Declaration, pledging to "spare no effort to free our fellow men, women and children from the abject and dehumanizing conditions of extreme poverty". This declaration was translated into an inspiring framework and into wide-ranging practical steps that helped to lift more than one billion people out of extreme poverty. Also, in "The Future We Want", the outcome document of Rio+20, Member States emphasized the highest priority to poverty eradication within the United Nations development agenda. Poverty eradication is also addressed in Chapter II of the Johannesburg Plan of Implementation (2002) [7].

The SDGs which is generally known as Global Goals, build on the Millennium Development Goals (MDGs). Its primary aim is to end all forms of poverty through cooperative efforts from all countries, poor, rich and middle-income to lift the impoverished out of poverty and promote prosperity as well as conserve the planet. Besides poverty eradication, they also call for actions from all countries to develop necessary strategies which promote economic growth and provide equal access to a range of social needs including health, social protection, education, and job opportunities, while conserving the nature and tackling climate change [8].

Although the world population living in extreme poverty reduced from 15.7 % in 2010 to 10.0 % in 2015, the global poverty reduction rate has slowed down as the global poverty rate gets to 8.2 % in 2019. It is estimated that the 6 percent of global population will be living in extreme poverty in 2030, which is missing the target of SDGs to end poverty. In the situation of COVID-19 pandemic, it is assumed that the poverty rate possibly reaches 8.8% in 2020 unless the situation recovers very soon. This is the first rise in global poverty since 1998, and close to the 2017 level. About 71 million additional people are expected to be living in extreme poverty due to COVID-19. The largest increases in extreme poverty can be in Southern Asia and sub-Saharan Africa, with an additional 32 million and 26 million people, respectively as a result of the pandemic [9]. (as Figure 1)
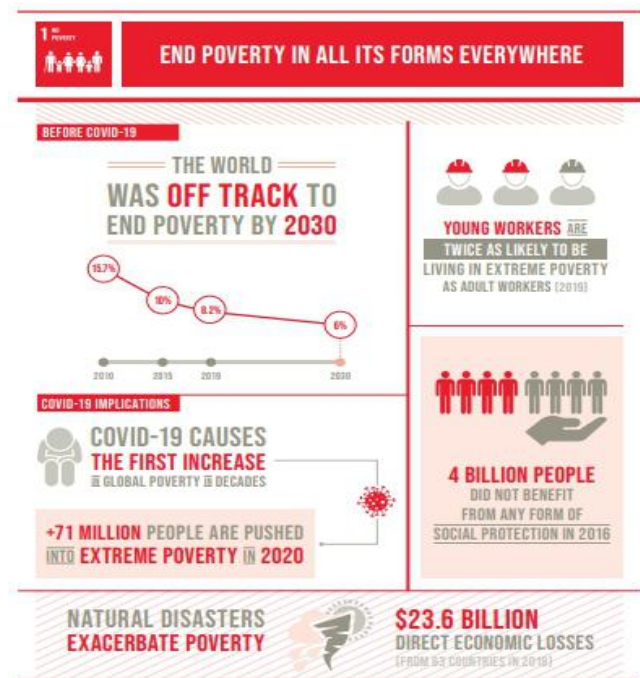
Figure 1. Overview infographic [10]

According to World Bank report, Thailand has been successful in reducing poverty over the past three decades from over 65 % in 1988 to under 10 % in 2018. However, there is no growth of national household income and consumption in recent years which makes poverty reduction reverse and more people living in poverty. From 2015 to 2018, Thailand's poverty rate increased from 7.2 % to 9.8 %, and the number of people living in poverty rose from 4.85

million to more than 6.7 million. The increase in poverty in 2018 was widespread in all regions, 61 out of 77 provinces. In the Central and Northeastern regions, the number of people living in poverty increased by over half a million in each region during the same period. And due to the conflict in the South, the region had the highest poverty rate for the first time in 2017 [11].

Thailand is the only nation in ASEAN experiencing several increases in poverty since 2000. Over the past few years, Thailand's growth rate has been lower than other large economies in the developing East Asia and Pacific region. During the fourth quarter of 2019, the GDP growth rate in Thailand was at 2.7%, the lowest rate among other countries in the region This shows that households are not resilient to sudden economic and environmental challenges. The income distribution of people at the bottom 40 % was not in prosperity. And in the recent period of 2015-2017, consumption and income growth in this bottom 40 % were negative. The main reason comes from the decline in labor incomes both in farming and business sections. Therefore, Thai households need better protection from income shortage such as ill-health, job-loss and natural disasters [12]. To eliminate constant poverty, it requires creation of more productive and higher-paying jobs and growth strategies for short-term risk alleviation and long-term investment. For short-term risk alleviation, Thailand needs to take immediate action in creating better jobs for the low-income households. For long-term mitigation, there should be promotion for long-term investment to improve living standard of the poor, such as providing better health services, more educational opportunities, better welfare for aging population [13].

Elderly poverty now also becomes a global phenomenon, for example, South Korea has the highest poverty rate of people aged over 65 comparing to other countries in the Organization for Economic Co-operation and Development (OECD). In 2017, the country's elderly poverty rate reached 43.8% while the average poverty rate in the OECD was 13.5% [14]. Therefore, it is necessary to understand the effects of poverty in order to develop proper intervention strategies which aim to prevent and reduce the weaknesses caused by poverty [15].

The number of aged people In Thailand has reached 11.23 million, or 17.13 % of the total population. Thailand will become an ageing society in 2021 when the number aged people will rise to 13.1 million or 20 % of the total population, according to an NESDB report. In this number, those at age 70-79 and above 80, will account for 37.2 % and 19.1 % respectively. This make a combined 56.3 % of the total aged population. This is a challenge for families, communities and the country because older people require more care for their welfare and assistance in their daily lives [16]. There are some guidelines for reducing the elderly

poverty such as providing more jobs opportunities for the elderly; promoting lifelong education for preparedness into qualified and skilled elderhood; preparation before entering retirement; encouraging household saving; and reducing unexpected circumstances for household having the elderly. Governments also need to establish intervention programs to reduce the dependent household members and to monitor these households which are considered vulnerable to poverty [17].

Poverty has been one of crucial problems in Thai society for a long time. It requires immediate actions from all sectors involved, even individuals and households themselves. Only government itself cannot achieve the poverty eradication goals. To resolve poverty problems, people in communities and local authorities can collaborate with the government in finding solutions together via alternative paths that respond to the needs of people and their communities, for example, development program emerging from local wisdom, development program characterizing self-help and helping each other in the community, and development program conserving environments. Sufficiency economy philosophy can also be an effective alternative path for alleviating poverty among Thai farmers. Sufficiency economy villages supported by government policy are able to solve the problems of one village to the others sustainably.

III. Introduction to Sufficiency Economy Philosophy

Being concerned with the hardship of Thai farmers who were living in poverty when he ascended to the throne in 1946, King Bhumibol were keen on improving the living quality of Thai people in rural area. The per capita GDP of Thailand, at that time, was about US$200. The king instituted a number of royal projects to help lots of the impoverished in rural area [18]. His royal projects aim to promote self-reliant or sustainable farming as well as protect critical natural resources.

In 1970s, Thailand faced many economic problems: oil-price spikes, decreasing US investment, budget deficits, inflation, and unstable domestic politics [19]. Sufficiency Economy Philosophy was first introduced during the King's speech to students in universities in 1974. He stated that development of the country had to proceed in stages. First, there has to be a foundation with the majority of the people having enough to live on by using methods and equipment in economical but technically correct ways. When the foundation is secure, then it can be gradually expanded and developed to raise prosperity and the economic standard to a higher level by stages [20]. As Thailand's economy took off with a strong component of agricultural exports, many farmers engaged in mono-cropping to pursue as much profit

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as possible. But when sudden changes occurred in the market and crop prices dropped, they suffered from debts and poverty. That convinced many farmers to try the Sufficiency Economy Philosophy. By doing integrated farming and reducing their dependence on single crop, many farmers recovered from the hardship and uplifted their families as well as were immune to the economic shocks.

In 1997, Thailand faced another critical financial crisis which was caused by many factors including economic growth slowing down in 1995, contraction in the real estate sector due to a constraint in market demand, the emergence of China as an intimidating competitor in international trade, and an appreciation of the dollars after Spring 1995. The real estate business had become unprofitable because too many houses and business buildings were built but the commercial vacancy rate went up to 15%. The business owners, thus, were not able to pay back their debts to financial institutions. As the result, non-performing loans led to bank crisis. In international trade, Thailand's international trade had become less competitive due to the emerging trader, like China, and a constantly increasing trend of dollar currency which had worsened Thailand's terms of trade since the Spring of 1995 [21].

It is obvious that Thailand financial crisis in 1997 mainly caused by imbalanced economic and social development and too much dependence on international trade and foreign capital inflows. During the economic crisis in Thailand in 1997, the King reiterated his Sufficiency Economy Philosophy in his speech on December 4, 1997, "Recently, so many projects have been implemented, so many factories have been built, that it was thought Thailand would become a little tiger, and then a big tiger. People were crazy about becoming a tiger...Being a tiger is not important. The important thing for us is to have a sufficient economy. A sufficient economy means to have enough to support ourselves." [22] During the hardship caused by 1997 crisis, Sufficiency Economy Philosophy caught more attention from academics, government officials, private enterprises, and even local people. For years, it has been proved that Sufficiency Economy Philosophy is not limited only to the agricultural or rural sectors but it can be applied to all levels, branches, and sectors of the economy including the investment, financial, the real estate, and the international trade.

IV. SUFFICIENCY ECONOMY: A PRACTICAL GUIDANCE FOR POVERTY ERADICATION

The Sufficiency Economy Philosophy's central goal is to alleviate poverty and hardship among Thai people. King Rama IX formulated the philosophy not in the comfort of a palace, but in the remote areas by working with poor villagers in every corner of his kingdom over a period of decades; researching, experimenting, using trial and error to find what works with the participation and feedback from the villagers themselves. The Sufficiency Economy focuses on human well-being, emphasizes human security and environmental sustainability, and concentrates on human development. Sufficiency Economy principles has been proved applicable for household, communities, and the country through 4,000 royal development projects and 8,000 model Sufficiency Economy Villages. The pilot projects that proved successful were often adopted and scaled up by the government to amplify and extend their benefits to more people nationwide.

Sufficiency Economy philosophy highlights a balanced way of living, or the Buddhism's middle path. It emphasizes the sufficient livelihood and cooperation at the local level as well as allows the nation to modernize without resisting globalization. At the same time, it strengthens the communities and the country to counteract negative outcomes from rapid economic, cultural, and environmental changes [23]. At the individual and household level, it guides people and families to live in a more self-reliant way with less dependence. At community level, it promotes sharing and cooperation within the community as well as be immune from sudden economic and politic changes. At the national level, it strengthens the nation economic system and increase human capital of the country as well as promote environmental sustainability.

The levels of success of poverty eradication based on Sufficiency Economy Philosophy can be varied depending on different factors including being insightful, honesty and perseverance, reasonableness in investment and consumption, and teamwork and goal sharing. Either an individual, household, community, or country, should understand what they have on hand to start with and what they are going to do. They should learn from their experience of economic activities and be insightful when making decision. Honesty and perseverance are required. When their decision does not work or the outcome is not going as plan, they should accept and put their efforts to correct it and work hard to accomplish. They should be reasonable when making an investment and not spend on unnecessary things or spend more than what they can earn. Teamwork and goal sharing is also an important key to success in poverty reduction according to Sufficiency Economy Philosophy [24]. (Figure 2)
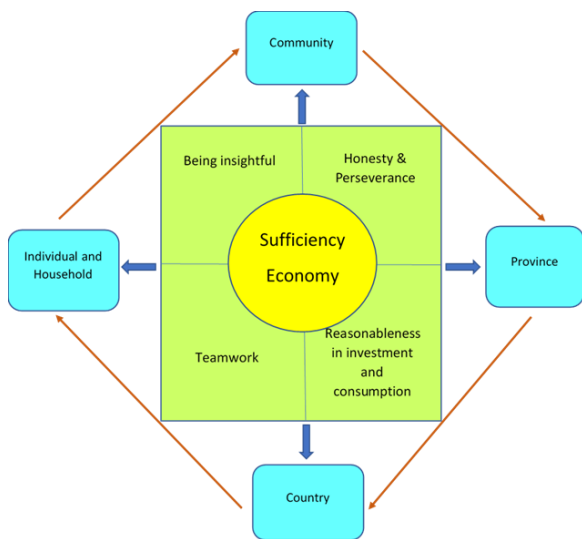
Figure 2. Key Elements for Successful Poverty Eradication based on Sufficiency Economy Philosophy

To achieve long-term poverty eradication at the local and national level based on Sufficiency Economy Philosophy, government may need to establish effective plans at early step including Management of Community's Natural Resources and Environment, Community's Business Support for Poverty Solving, Development of Local Administration for Poverty Solving, and Increases of the Poor's Efficiency and Potential. Therefore, the community can have an effective poverty reduction system and use local resources effectively [25]. (Figure 3)
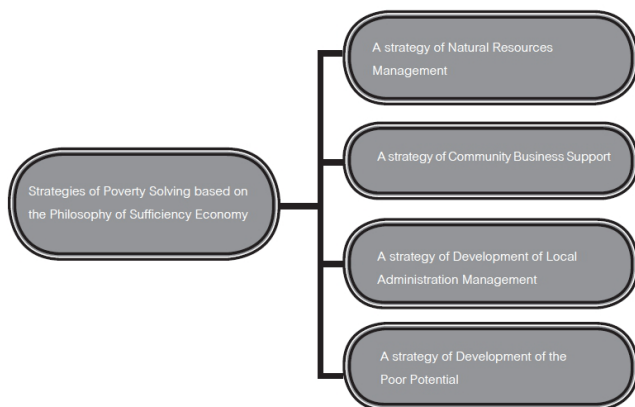
Figure 3. Strategies of Poverty Solving based on the Philosophy of Sufficiency Economy [26]

Recent economic, labor market, environmental challenges and COVIC-19 pandemic reveal that Thai households are vulnerable to falling back into poverty. Persistent poverty and inequity can be intensified by employment in the low productivity agriculture sector, an aging society, lagging regions and heterogenous access to services. Trends in economic growth and perceptions from 2018 and onward indicate that households will continue to face challenges. Aside from improving policies on safety nets, targeting, and risk mitigation to help the vulnerable, longer-term strategies are also necessary. These longer-term strategies will involve, among other things, investing in the next generation. Sufficiency Economy principles should be adopted and practiced at all levels in different sectors of Thai economy. Thai government, local authorities, and communities should seriously implement this economic philosophy to alleviate the current problems of poverty and promote well-being of Thai people in the future.

CONCLUSION

Poverty has been one of crucial challenges for many countries, especially in South Asia and sub-Saharan Africa. Unproductive farming due to climate changes and economic downturn are main reasons making millions of people live in poverty. The COVID-19 pandemic has also worsened the situation due to its both immediate and long-term economic consequences for people across the globe. Life worldwide has recently changed drastically. The COVID-19 pandemic has been threatening not only healthcare systems, but also the stability of economies and the livelihoods of citizens. Countries requires strong social protection systems for alleviating the effects and preventing many people from trapping in poverty. What can be an effective system for preventing from falling into poverty?

Sufficiency Economy can be an answer to this puzzle because it offers a practical guideline for people to live their lives in a sufficient manner. It is practical, simple to implement, and flexible to different challenges. It highlights a balanced way of living and emphasizes the sufficient livelihood with cooperation at the local level. With its core principles of moderation, reasonableness, the need of self-immunity, individuals can be self-reliant with sufficient protection from impact arising from internal and external changes. However, they need to be insightful, honest and persevere. Also, they need to make a reasonable investment and consumption as well as work together with others.

The hard time when Thailand faced the economic crisis in 1997, people, businesses, and government realized that the economy was unbalanced and unsustainable. Sufficiency Economy Philosophy encourages people to be moderate, prudent, and self-immune to sudden changes and difficulties. When facing hardship, it guides people to persevere and strive on. While Thailand economy suffered from economic pain, the government and businesses started to embrace sufficiency economy and established effective measures to ensure good governance, including the bottom-up decision-making with respect for local wisdom and knowledge, as well as listening to people and businesses

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voices. Since then, the Sufficiency Economy Philosophy has been taken as guideline for country's development as it directs the country with the common intention of development based on the principles of moderation and avoiding redundancy. Understanding of SEP is found to be one of the key factors having influence on people's wellbeing and enabling Thailand to pursue a balanced and sustainable development. It is adaptable to any unforeseen events, whether an economic crisis, a natural disaster, or a social dilemma. Ultimately, by putting the Sufficiency Economy into practice, the well-being of the Thai people will be improved and poverty will eventually be eradicated.

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Circular Economy: A milestone for Zero Waste Municipality

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Abstract—

People around the world generate billion tons of waste. Over two billion tons of solid waste was produced in 2016 and it is estimated to rise to 3.4 billion tons by 2050. The world's trash amount is reaching crisis and seems to getting bigger and bigger unless we take a systematic action to deal with it. The purpose of this article is to study a methodology for zero waste municipalities, examine the role of a community in addressing municipal waste and moving towards zero waste, and to evaluate how circular economy can contribute in achieving zero waste municipality. Zero waste is likely adopted as a mechanism for waste management, but circular economy is a mechanism for industries and businesses in both eliminating waste and promoting resource efficiency as products are intentionally designed and manufactured to be repurposed and recycled. The result showed that with the circular economy concept, the waste can be reduced at the first stage of prevention as products are designed to use regenerative materials and designing technic to make them last longer and repairable in the light of designing out waste. Also, waste can be getting less and less due to the practices of reuse and repair service which extends product life cycle. Recycling is another practice that contributes to waste elimination as the component parts and materials will be used for manufacturing new products.

Index Terms— Zero waste municipality, the Circular Business Model, Circular Economy

I. INTRODUCTION

Many cities have completely changed after the COVID-19 crisis. What and how we consumer and how we interact with each other in our communities are not the same as it used to be. The pandemic has caused many problems to societies around the world and governments have launched several measures to tackle those problems. The zero-waste approach is now more relevant to people than it ever has been. It is an urgent requirement for nations around the world to reduce the negative impact we are causing to our planet and at the same time to promote the resilience of our health and economic systems. By adopting a zero-waste practices, countries around the world will be able to minimize the negative consequences of the pandemic. Zero waste masterplan can provide guidance and strategies to bring sustainability, resource-efficiency, and climate-resilience to nations.

Over the next 12 years, cities around the world are making commitment to minimize waste with an effort to reduce global warming and finally transition to zero-waste cities. According to the C40 new initiative, cities are encouraged to eliminate waste production and end the practice of waste burning. 23 cities have agreed to become zero-waste and will try to achieve the goal by minimizing the amount of municipal solid waste sent to landfill and incineration by at least 50 % and increase the diversion rate away from incineration and landfill to at least 70 percent by 2030 [1]. The cities, such as San Francisco, New York City, Washington D.C, Catalonia, Auckland, Dubai, Copenhagen, London, Montreal, Toronto, Vancouver, Milan, Rotterdam, Sydney, Paris, Tokyo, and Tel Aviv, also committed to reduce waste generation by 15 % and enhance alternative waste management practices by 2030. Additionally, each city has agreed to cut down on waste that ends up in landfills by at least half over the next decade [2].

Cities around the world are trying to increase recycling rates and targets and finding new uses for wastes arising from their built environment as well as from consumption. With their national goals to promote sustainability, many cities are also increasingly promoting circularity of their resource flows, especially in water and high value-added food production, and reducing negative impacts associated with other needs, such as carbon emissions and pollution from energy consumption.

II. A METHODOLOGY FOR ZERO WASTE MUNICIPALITIES

Due to changes in our societies after the COVID-19 crisis, nations around the world should have made a change in zero waste masterplan to provide clear guidance on how zero waste can be transition towards a circular relationship with

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resources and environment. To accelerate progress towards zero waste and circular economy, a methodology and strategy for zero waste transition at the local level should include ideas and solutions that can be followed and replicated in the local communities. It should cover the concept of zero waste, its guiding principles, steps for designing a zero-waste plan at the municipal level and a challenge to some of the myths and fiction surrounding the narrative on zero waste. It should be designed to understand what zero waste is and how to implement a zero-waste strategy within community [3].

Zero waste is the principle of designing waste and the toxics and inefficiencies come with it out of the economic system. The value of materials and products must be kept within the community where they are reused over and over. Any technology that encourages material recovery is required to extend the resource lifespan as long as possible. Recycling is important to close the loop but it should be considered as an end-of-pipe solution because we cannot recycle all of the waste created in a wasteful society. The best zero waste plan is designed to stop waste generation in the first place. It requires intervention at the design stage to manage and prevent waste that should not exist. For example, to reduce food waste, there should be right training, incentives and procurement policies in canteens, restaurants, hotels, hospitals or homes.

City authorities can play an important role in encouraging the roll out of important initiatives such as refillable systems for beverages and ban on single use plastic packaging and containers in the local shops. For durable goods like electric appliances, furniture, or clothes, local organizations need to encourage repair and reuse operations in the form of second-hand shops. Changes in public procurement can make change to market and increase purchasing power as well as can be used as tools for preventing waste from being generated at the local level. Products and packaging need to be redesigned not to become waste and retain as much value as possible at the end of their useful life. If a product cannot be reused, repaired, refurbished, recycled or composted then it should be redesigned or taken out of the system.

An effective zero-waste system needs to be able to detect recoverable material from waste and design alternatives so they can be managed within a circular system. Residual waste should be regularly studied in local screening facilities so that non-recoverable products can be either redesigned or removed from the market. From the design stage, it should be made clear whether the product or packaging should be part of the biological cycle (products for consumption) or part of the technical cycle (products for service). Normally, products or packaging that mix technical and biological components are very difficult to dispose in current resource management systems, hence, they should not be allowed onto the market, unless there is a clear direction how to separate them for further different recycling operations. If material separation is done properly at the collection stage then resources keep their value and they can be recycled into secondary raw materials.

In aligning with the new paradigm, changes must be done to the infrastructure. Disposal infrastructure, such as landfills or incinerators, should be gradually closed down due to the reduction of waste generation and the increase of recycling rates. Flexibility is needed in zero waste system, so cities' contracts and waste plans should be designed to overcome challenges and promote transition towards zero waste.

A local zero waste municipality strategy should include the following core practices: [4]

1. Make a strong commitment on zero waste by making a public announcement and conducting preliminary public consultation

2. Provide support and examination through zero waste advisory board with local stakeholders, civil servants empowerment by education and training, and data collection on waste generation and recycling rates.

3. Design Zero Waste plan with specific goals to reduce residual waste (in kgs/person) and outline the key steps that will take to achieve these goals

4. Design collection plan, at least for organic waste, dry recyclable materials (paper, glass, cardboard, cans, etc.) and create municipal recycling centers for items that are too expensive for or cannot be incorporated into regular collection schedules, such as; light bulbs, construction and electronic waste

5. Develop strategy to optimize organics management which may include; Home composting, Community led composting centres, Decentralised composting systems organised by a municipality, Centralised professional composting systems, for handling organic waste on a larger scale, ideal in densely populated cities

6. Encourage local waste prevention initiatives, such as; Packaging free shops, Refillable water centres, Zero waste public procurement, Regulations to encourage plastic free lifestyles, such as bans on plastic bags or straws.

7. Promote Reuse/Repair Centers either at municipal or district level by working with the local community to establish centres where products and resources can be reused by another community member or repaired by a local expert

8. Incorporate law and regulation enforcement with the plan to encourage waste prevention, such as Pay-As-You-Throw (PAYT), Deposit Return Schemes (DRS), Extended Producer Responsibility (EPR)

9. Analyse residual waste and use the data to feedback and improve the system by creating a system where the composition of your residual waste can be regularly analysed to find the most problematic materials/resources are most problematic; Use the data to improve the efficiency of the collection schemes with more effort to make recycle materials more visible; Give this information to businesses and industry to encourage the industrial design of recyclable products and packaging

10. if local regulations do not allow the right away, adopt or promote more efficient systems to manage residual waste that recover more recyclable materials; use transitional landfill capacities for pretreated waste; flexibly manage and adapt pre-treatment sites into compost and recycling ones.
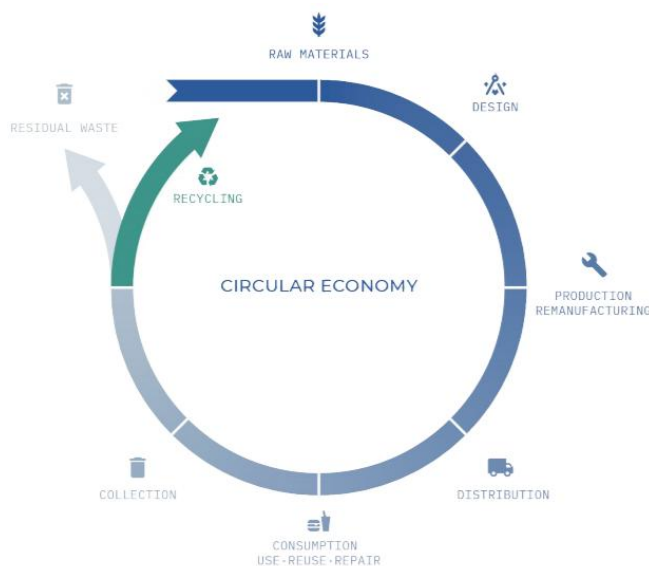
Figure 1. The Circular Economy diagram [5]

Adopting a zero-waste approach could bring benefits to municipality, specifically in term of a reduction in the costs of waste management and the levels of waste generated. As a powerful model for tackling many of today's challenges especially about resource efficiency and climate change, circular economy is widely recognized as transition to zero-waste. (as figure 1) Moreover, the potential benefits of shifting to a circular economy extend beyond the economy and into the natural environment. By ending waste and pollution, keeping products and materials in use, and regenerating rather than degrading natural systems, the circular economy represents a powerful contribution to achieving global climate targets.

III. TOWARDS ZERO WASTE COMMUNITIES

Transition to zero waste is not a single-party's responsibility, but needs cooperation from all parties in the community. Community as a whole needs to work hand in hand through the path towards zero waste. Community should establish benchmarks and a timeline to meet goals and to be able to measure success and monitor accomplishments along the path. All parties in communities should aim to make a significant step forward within a scheduled timeframe and to invest their resources and leadership in achieving tangible accomplishments for the public to recognize this new direction as soon as possible. For example, communities should set a goal to divert waste generated from landfills and incinerators within a limited timeframe, such as 10 or 15 years of adoption a plan. The important thing is communities should make it clear in the planning process what is a reasonable goal for their community while recognizing the urgency of moving quickly to address the problems of climate change [6].

Landfill practices need to be reformed to prevent air and water pollution and to pre-process all residues at landfills before burial to stabilize the organic fraction and prevent methane generation. Landfills are a major source of greenhouse gases, which warms the atmosphere 23-72 times more quickly than carbon dioxide as well as ground contamination [7]. Existing incinerators need to be shut down and no new ones built. Incinerators and other burning and thermal treatment technologies such as biomass burners, gasification, pyrolysis, plasma arc, cement kilns and power plants using waste as fuel, can directly and indirectly produce greenhouse gases to the atmosphere and turn resources that should be reduced or recovered into toxic ashes that need to be disposed of safely. Communities should work together to replace landfills and incinerators with Zero Waste policies and programs which include resource recovery centers, and reuse, recycling, and composting facilities [8].

It is important for communities to engage all sectors of the community in zero waste programs. All organizations including local government, nongovernment, grassroots movements, private organizations, and business that provide waste reduction, takeback, reuse, recycling and composting services should get involved in achieving Zero Waste. All members of these groups and people in the community should be encouraged to pursue Zero Waste at home, at school, at university, at work and at play, and their communities need to develop longer term policies and

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programs for the entire community. Existing service providers should also be asked to aim for Zero Waste achievement as a goal and find opportunities to reduce waste, provide takeback services to local manufacturers and retailers, as well as help communities and businesses get to Zero Waste. All sectors of the community should communicate each other's actions in all planning and implementation phases of the Zero Waste plan.

Local businesses need to engage in taking back products and packaging at their stores and factories from consumers. State and national policies and programs that promote responsibility of brand-owners and producers, such as Extended Producer Responsibility (EPR) should be established in order to shift the discard management costs for products and packaging that are difficult for reuse, recycling, or composting in most local programs from government to the producers of the product. This will motivate producers to redesign products to make them less toxic and easier to reuse and recycle. Producers should be required to take back products and packaging that are toxic and cannot be reused, recycled, or composted at local facilities without any cost for the public. Collaborative programs to promote reuse, recycling, and composting should be developed with support of small, local businesses and nonprofits [9].

Local governments should take actions in promoting zero waste procurement in both private and government organizations, such as adopting the precautionary principle for municipal purchasing to eliminate toxic products and services. The actions also move the community a step forward to zero waste through purchasing zero waste products and services, avoiding single use products and packaging, returning to vendors any wasteful packaging, purchasing reused, recycled, and compost products, increasing lease, rent, and share equipment, and encouraging businesses and institutions to follow these practices. New rules and incentive programs need to be developed to move towards zero waste communities. Contracts and policies should be restructured to make the avoided costs of collection and disposal a key driver for moving towards zero waste.

Local governments and all stakeholders should engage in expanding zero waste infrastructure by providing locations and facilities for reuse, recycling, and composting to collect and process materials, including resource recovery center. Efficient repair and reuse programs should to be established to retain the form and functions of products. Residuals need to be appropriately separated at a residual separation center and made very visible, since they represent either bad industrial design or bad purchasing habits, both of which to be changed through a dedicated research and

educational effort. Also, compostable organics should be taken out of landfills and back to the soil as soon as possible to reduce methane and other landfill gases. Small local composting operations should be developed to large centralized facilities so more compost can be used locally to grow food and restore soil to promote food security, local self-reliance and sustainability. Support should be provided to locally owned and operated enterprises so they can manage and use local discards sustainably and create more jobs and training opportunities in the local community.

Zero waste is a strategy that aims for better organization, better education, and better industrial design. It requires cultural change and communities need to provide education and training for residents, school children, college students, businesses, and visitors to understand new rules and programs. Besides, communities need to conduct waste assessment scheme to find out amount and type of waste being produced in their community. The scheme should be used as baseline to identify recovery and employment opportunities, cost savings, and measure the success of waste reduction and recovery program. Communities also need to evaluate what additional programs and facilities, such as source reduction, reuse, recycling, composting, are required to make the services more convenient for users than mixed material collection and disposal services [10].

IV. CIRCULAR ECONOMY: AN IMPORTANT MILESTONE

A circular economy is an economic system that has a positive net effect on the environment. In circular economy, value of resources and materials used can be retained as much as possible which is contrary to a linear economy of take, make, use, and dispose. It ensures lesser and lesser of waste is generated through the production process and the life history of the product, thus, it has significant influence on reduction of resource extraction. The idea is simply emphasizing on three principles: use only the materials needed, manufacture without creating additional waste, and produce products that can be used again later [11].

The concept of circular economy is to design out waste and pollution, keep products and materials in use, and regenerate natural systems, so that we do not over exploit the natural resources of our planet. Changing the way we make and use products can reduce global greenhouse gas emission by 45%, making a critical contribution to the reduction of climate crisis. With circular economy, we can reduce our reliance on scarce resources and increase our economic resilience, as well as build a $4.5 trillion economic opportunity by avoiding waste, making businesses more efficient, and creating new employment opportunities [12]. By creating a circular economy we can make the system

stronger and flatten or even reverse some of the trends that now threaten the existence of future generations.

A successful circular economy in cities depends on collaboration between public and private sectors as much as possible. Cities should take these opportunities to create a system that is beneficial for all sectors in cities and can work long term for the economy, society, and environment. These benefits can happen by changing the way urban systems are planned, designed, financed, and how they are made, used and repurposed. The business model should focus on the development of new materials to promote the use of renewable energy, bio-based, less resource-intensive or fully recyclable materials. Materials, components and parts of a system should be captured and sent back into the system instead of virgin or recycled materials [13]. Finite resources must be kept in the manufacturing and business chain as long as possible through sharing, reuse, refurbish, and recycle, then sent back into the system as raw materials again. (Figure 2) The future cities, while sustaining this population, also need to become resilient to climate change, increase energy and resource efficiency, solve the existing social imbalances, and improve human well-being [14].
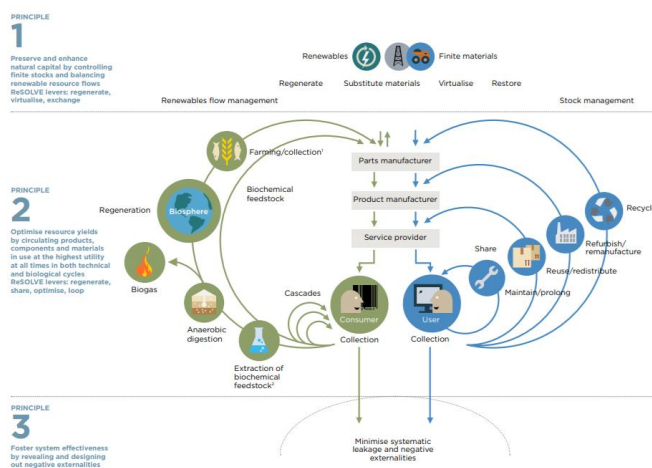
Figure 2. Outline of circular economy [15]

Allowing a circular economy to function, these different types of Circular Business Model (CBM) will need to interact and work together. However, the full circular benefit can happen only if the business model allow change in product and process design to reduce the use of virgin resources. Business organizations need to work together in a built environment based on a circular economy and they have opportunity to expand the services they offer or collaborate with others to maximize value. (as figure 3)
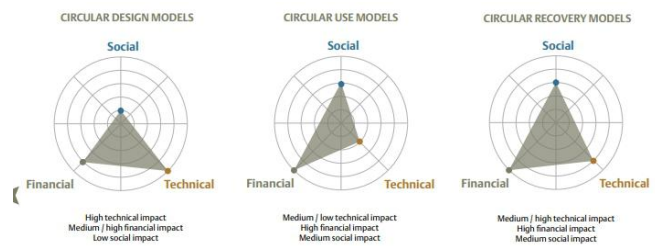
Figure 3. Expected impact from a social, technical and financial standpoint for the over-arching business model types [16]

In a circular economy, products and packaging should be designed out of becoming waste and for retaining its value as much as possible at the end of their useful life. If a product cannot be reused, repaired, refurbished, or recycled, then it should be redesigned or removed from the system. Some substances in products or packaging can harm human health and other living creatures. Therefore, a product or packaging must be designed to be safely reintroduced into the production cycle, otherwise its recirculation as a secondary raw material can negatively impact the recycling systems and the items using this recycled content. Therefore, a successful circular economy needs to appropriately manage the potential wasteful substances to make it safe for sending back into the system again and thus contribute to zero waste system. Consequently, residual waste in the community should be regularly studied in local screening facilities in order to redesign or remove the non-recoverable products out of the market. It should be clear since the design stage whether the product or packaging should be part of the biological cycle (products for consumption) or part of the technical cycle (products for service). The product or packaging that is difficult to digest due to its mix biological and technical components should be removed from the market unless it is clear how to separate its components in different recycling operations. For any case in which materials and products are circularity but the local waste collection and treatment system are not able to manage them, the producer should ensure that these materials and products are effectively recycled in their own facilities [17].

In achieving circular economy, it is essential to explain what can be recycled and how, to explain what materials can and cannot be accepted for recycling, to simplify recycling services, to make collections more consistent, and how to persuade those who can recycle more. Only doing so, we can gain the environmental and economic benefits that recycling offers, for example, reducing the demand for new oil-based products, keeping the oceans healthy, driving down greenhouse gas emissions, conserving our limited natural resources in use, and reducing demand for virgin raw materials. Therefore, most types of waste should be classified as controlled waste which includes commercial, industrial,

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and household waste and all of us need to take legal responsibility to ensure that our produce, store, transport and dispose of controlled waste without harming the environment [18].

V. MAKING ZERO WASTE A REALITY WITH CIRCULAR ECONOMY

As zero waste ideally aims to design waste out of landfills and incinerators, it requires efforts to reduce waste generation as close to nothing as possible by designing and managing products and processes to eliminate waste and toxicity of waste and materials. According to Zero Waste International Alliance, zero waste means the conservation of all resources by means of responsible production, consumption, reuse, and recovery of products, packaging, and materials without burning and with no discharges to land, water, or air that threaten the environment or human health [19]. To successfully achieve zero waste, a community should adopt circular economy practices to their manufacturing and business system as it ideally aims to retain the value of materials for as long as possible and to eliminate waste. Within a circular economy, resources are restored when a product has reached the end of its life, so the resources can be productively reused for as long as possible.

In the circular economy, waste management plays a critical role. According to EU waste hierarchy, the first priority is put on waste prevention, then, preparation for reuse, recycling, and recovery through to disposal [20]. Circular economy is needed for tackling environmental crisis and waste problem because it offers new way to reduce risk of resource shortage and allow businesses to grow and diversify as well as keep product and material circulate in high value of use along supply chains [21]. With the circular economy concept, the waste can be reduced at the first stage of prevention as products are designed to use regenerative materials and designing technic to make them last longer and repairable in the light of designing out waste. Also, waste can be getting less and less due to the practices of reuse and repair service which extends product life cycle. Recycling is another practice that contributes to waste elimination as the component parts and materials will be used for manufacturing new products. (Figure 4)
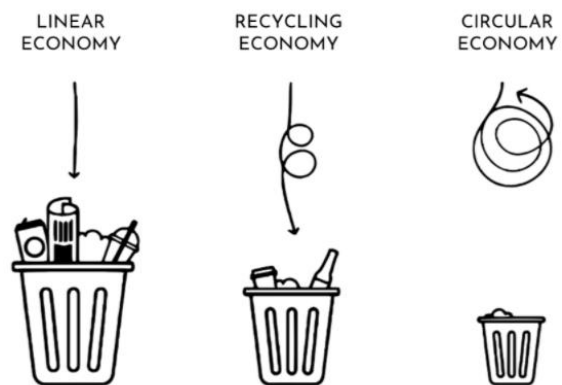
Figure 4. Illustration of Circular Economy Contributing to Zero Waste [22]

CONCLUSION

Due to the increasing pressure on the world limited resources and ecosphere, zero waste and circular economy are the concepts that are gaining more and more interest as they both aim to reduce such pressure on the planet through a number of strategies. Zero waste is a concept of waste management aiming to eliminate waste as close to nothing as possible while circular economy is a regenerative system aiming to minimize resource input and waste, toxic gas emission, and energy leakage. Circular economy can be used as a systematic approach to achieve zero waste as it focuses on long-lasting design, maintenance, repair, reuse, remanufacturing, refurbishing, and recycling, so waste is eventually faded out of the economy. It also promotes social, economic, and environmental sustainability. In the municipality/city level, the mayors, committees, and organizations should work together to promote certain initiatives that strive to achieve the goals of a sustainable circular economy.

The COVID-19 crisis has completely transformed modern society. The zero-waste approach is now more relevant to all people in society than it ever has been. It is an urgency that we must reduce the negative impact we are having done to our planet. Zero-waste concept should be adopted as a guideline to direct where we are going after the COVID-19 crisis. In every crisis, there is an understandable fear of the recession but also the possibility to learn the lesson and creating something new. Rooted in community participation, zero waste policies can help us pave the way toward sustainable waste management systems that work for both communities and the environment.

As we are moving from the economic slowdown into the post-COVID-19, we must not get stuck in the past, but look ahead to the future. Circular economy principles can be a mechanism for not only achieving not only zero waste in

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cities, but also promoting social, economic, and environmental sustainability. With all the knowledge, manpower and influence we have to push forward on the priorities, we will be able to build a circular economy. It is essential to get collaboration among business, industry, government, and civil society, but the rewards will be well worth it. Waste and toxic gases will be eliminated, ecosystem will become healthy and resilient, resource extraction will get less, products will be better designed and last longer, economy will be prosperous due to more job opportunities as well as people and nature can live together in harmony. The future cities must become resilient to climate change, increase energy and resource efficiency, solve the existing social imbalances, and improve human well-being. Zero waste municipality can be reached through the ladder of circular economy.

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Sufficiency Economy Philosophy for Sustainable Zero Plastic Waste

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Abstract—

Plastic wastes has become a global problem, and Thailand produces about two million tonnes of plastic waste per year, around 12% of total waste. The purpose of this article is to examine the causes of plastic waste in Thailand, to study the goals of Thailand's Roadmap on Plastic Waste Management 2018-2030 and Master Plan on Solid Waste Management 2016-2021, to examine the SDGs Goal 12 regarding waste reduction and sustainable consumption and production, and to investigate the principles of Sufficiency Economy Philosophy (SEP). Documentary study and literature review were used for data collection. Plastics waste and pollutions and inappropriate waste management have caused a lot of problems to people and communities and they cause contamination and residual cumulative impacts on the environment. The result showed that single-use plastics was a major factor of increasing plastic waste, especially during and after COVID-19, and inappropriate waste management has accounted for negative impacts on public well-being, communities, and environment. Sufficiency Economy Philosophy, when being applied to waste management, could play an important role in changing consumer's behavior towards waste reduction because it influenced individuals to be aware of the impacts that their actions and consumptions may have on the environment, and subsequently their livelihoods. Thus, SEP will promote the ban of single-use plastic under the Roadmap, strengthen the waste management of 3R (Reduce, Reuse, Recycle) under the Master Plan, and contribute to sustainable consumption and production under SDG Goal 12.

Index Terms— Plastic Waste Management, Zero Waste, Sufficiency Economy Philosophy, SDG Goal 12

I. INTRODUCTION

At the beginning of 2020, Thailand has banned single-use plastic bags with the hope to reduce plastic waste that damages the environment and oceanic ecosystem. However, the banning scheme is hindered by the spread of coronavirus pandemic. Due to the lockdown policy and work-at-home measure, people have to stay home and require more delivery service for food and goods. Plastic waste in Bangkok metropolitan has increased by 62% in April. Even when the pandemic eases, many companies and organizations still have their employees work at home and people have got used to online shopping and food delivery services. Environmentalists are afraid that Thailand can simply be a pointer for the single-use plastic waste situation elsewhere in Southeast Asia, home to four of the world's top five plastic polluters of the ocean. With the amount of plastic waste which is contaminated items from takeaway bags to containers, bottles and cups, made up more than 80%, Thailand is likely to see a surge of 30% nationwide this year, which comes from consumer behaviour shifting towards food deliver [1].

In 2017, Thailand's vision has been set Twenty-Year National Strategy 2017–2036 under "Stability, Prosperity and Sustainability", stressing or promoting a pollution-free economic growth with environmentally-friendly production and consumption, popular and multisectoral cooperation, Sufficiency Economy Philosophy, and internal strengthening with international linkages. To pursue this vision and achieving these goals in the future, the Thailand 4.0 policy has been established for investments in infrastructure and industrial development as well as environmental health program preparedness, based on awareness raising and capacity building in the monitoring of the impacts of environmental changes and pollution, and the prevention for aiming towards a happy co-habitation and balanced economic, social and environmental development.

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The National Master Plan on Waste Management 2016–2021 was approved with an objective to create an integrated waste management plan. Some of the key concepts under the Master Plan are the reduction of wastes at the source, the centralization of the waste disposal system and engagement and shared responsibilities of all sectors. As an example, government with cooperation of shopping malls and convenience stores promotes the ban of single-use plastic bags and encourages consumers to use reusable cloth shopping bags instead to reduce the amount of wastes. Additionally, as the government's Roadmap on Plastic Waste Management for 2018–2030, Thailand hopes to be free of plastic single-use plastics, i.e. plastic bags, styrofoam food boxes, plastic straws, and single-use plastic cups by the end of 2022. The goal is to reduce Thailand's plastic ocean waste at least 50% by 2027.

II. THAILAND'S ROADMAP TOWARDS SUSTAINABLE PLASTIC WASTE MANAGEMENT

Plastic provides variety of benefits for our daily life including packaging for food and goods, healthcare products, electronic gadgets and devices, even automobile spare parts due to its light weight, flexible and easy to form different shapes, shatter resistance, and less cost. However, plastic waste causes a lot of problems to the environment and threatens the ecosystem. It flows into waterways and ultimately the oceans harming marine lives. It also pollutes the land and the air negatively affecting wildlife, wildlife habitats, and humans [2]. Countries around the world have been developing different plastic waste management policies to tackle the problem, especially single-use plastics. For example, 27 countries enforced tax collection from the producers of single-use plastic bags while 30 charged consumers for single-use bags, according to UNEP.

For Thailand, the Roadmap on Plastic Waste Management 2018-2030 was acknowledged by the cabinet on April 17, 2019 as to be a policy framework for tackling the plastic waste problems. The objective of the roadmap is to stop the use of plastics and replace it with environmentally friendly materials [3]. At the beginning of 2020, the government launched its own ban on single-use bags at most shopping malls and convenience stores and expect a complete ban in 2021 in order to lessen plastic and debris in the sea [4]. This has been enforced, along with community outreach, social media campaigns and educational programs to raise awareness of plastic waste and plastic pollutions. When being aware of the problems, young people, professionals and academics can contribute their ideas to best practices for sustainable plastic waste management. Their intergenerational knowledge and actions could be a catalyst for changes.

Thailand generates about two million tons of plastic waste each year, 25% of which is recycled, according to the Pollution Control Department (PCD). The goal of Thailand's waste management bill is to make plastic 100% recyclable by 2027. If the bill becomes law, it will help to end single-use plastic bags, a key factor in its implementation of 3R which is a concept to Reduce, Reuse and Recycle. Manufacturers would also be mandated to put their plastic waste to good use under the Extended Producer Responsibility procedure (EPR). Additionally, the law relating to plastic waste management will be able to enhance the country's circular economy in the future. According to the Public Private Partnership for Plastic and Waste Management (PPP), plastic microbeads, cap seal, and OXO was fully phased out in 2019. And the next target is to fully phase out <36-micron shopping bags, Styrofoam food packaging, single-use plastic cup and straws by 2022. Its ambitious goal is to reduce plastic marine debris by 50% and recycle 100% of plastic waste by the year 2027 [5]. (Figure 1)

THAILAND'S 20-YEAR ROADMAP

PPP Plastic's Goal: To reduce plastic marine debris by at least 50% by 2027

Goals	Baseline	2018	2019	2020	2021	2022	2027
1. Waste plastics return into the manufacturing system – circular economy	21%	22%	25%	30%	40%	50%	100%
2. Reduce the usage of seven plastic packaging targets:							
2.1 Plastic microbead 2.2 Cap seal 2.3 OXO bag			100%				
2.4 <36 micron shopping bag 2.5 Styrofoam food packaging 2.6 Single-use plastic cup 2.7 Straw				25%	50%	75%	100%

Figure 1. Thailand's 20 years roadmap [6]

Over the first few months of 2020 after the ban of single-use plastic, Thais became more aware of the impact of single-use plastics on the environment and joined hands to reduce their consumption. But once the spread of Covid-19 struck the country, the amount of plastic waste generated has sprung up by 15%, and in April Bangkok's plastic volume went up to 62% due to the lockdown policy and work-at-home scheme. Of all the plastic waste items, 80% comprised bubble wrap, takeaway bags and containers, bottles, and cups [7]. However, The Natural Resources and Environment Ministry with cooperation of Thailand Responsible Business Network (TRBN) launched the "Sending plastic bags home" to tackle the rise of household plastic waste due to the stay-home measure [8].

In 2016, community-based waste generation in Thailand reached 27.06 million tonnes/year or 74,130 tonnes/day nationwide. Of this volume, 21% was recovered, 36% was properly disposed. The improper disposed waste was as much as 11.7 million tonnes/year or 43% of all generated waste. (Figure 2)
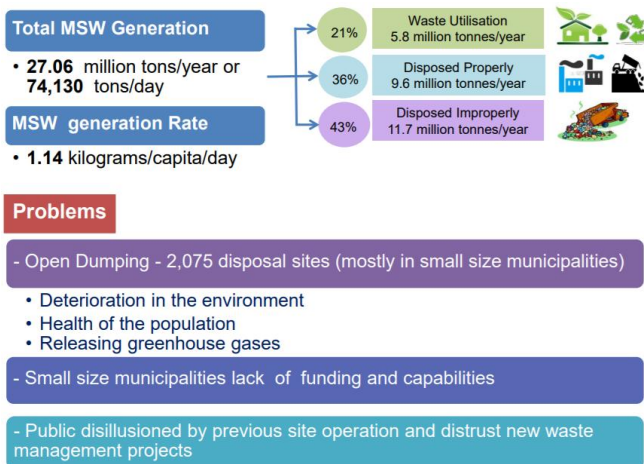
Figure 2. Situation of municipal solid waste management in Thailand 2016 [9]

With strong commitment to tackle waste problems, including plastic waste which was accounted for 17% out of the total waste, the Thai cabinet approved the National Waste Management Master Plan on May 3, 2016 with the aim to apply 3R; Reduce, Reuse, Recycle into waste management, increase efficiency of waste separation and collection, apply integrated technologies such as waste to energy, raise awareness, build capacity, and provide educational program about waste [10]. (Figure 3) Under the master plan framework, many waste disposal measures were developed for systematic waste management including waste reduction at source, manufacturer responsibility, increasing capacity of household waste management, and educational program for developing knowledge and raising awareness of municipal waste and household hazardous waste. (Figure 4)

Figure 3. National Waste Management Master Plan Goals [11]

Figure 4. Systematic Waste Management [12]

III. SDG Goal 12: Ensure sustainable consumption and production patterns

Due to massive manufacture of plastic and the huge amount of plastic waste, consumers all over the world are pushing for change, but it is not easy for each individual or each organization to take responsibility and action on the problem. Plastic is common material that can be found in almost all products sold in supermarkets and shopping malls, from food packaging, healthcare and cleaning products, office supplies, to clothes, even electronic device. It is a hard and complicated job to eliminate plastic from the waste stream as it requires a much more effort of all sectors than refusing single-use straws or ban on single use of plastic bags. SDG Goal 12; Ensure sustainable consumption and production patterns, was launched with the goal to promote resource and energy efficiency through the interconnectedness of the private and public sectors. (Figure 5)

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Figure 5. Sustainable Development Goals [13]

The SDG Goal 12 is closely related to the circular economy practices [14]. The Goal 12 and circular economy (CE) share the same goal to promote resource efficiency and regenerate natural system. The European Commission established the European strategy for plastics in a circular economy to transform the way plastic products are designed, used, produced and recycled in the EU, and help reach global climate commitments. EU governments have also agreed to ban single-use plastics and required manufacturers to take responsibility for their plastic products and packaging after sale. The EU revised its waste legislation to make it fit for the future and significantly steps up recycling of municipal waste (target of 55% by 2025 and 65% by 2035) and packaging waste (target of 65% by 2025 and 70% by 2030 and for plastics the 2030 target is 55%) [15]. In 2021, labels informing consumers about the presence of plastics in products and about the environmental impact of littering will come into force.

Although lots more people have become aware of plastic problem, they are unlikely to change their behavior, especially in developing countries. Most producers and consumers daily use single-use plastic and dump all plastic waste with other items without sorting despite their growing sensitization of plastic waste. Moreover, plastic recycling is complicated because daily-use products are made from a variety of polymer materials. To increase recycling rates, there needs to be proper identification and separation. To tackle with plastic waste problem and move towards sustainable consumption and production of plastic, all economic players including policy-makers, producers, business sectors and consumers worldwide are required to contribute and take steps rethinking the way economic development is pursued.

For Thailand, the 3R concept has been taken into the waste management program as guideline for sustainable consumption and production. To fight the plastic waste problem, only government's plans, policies, law, and regulations are not enough to fix the problem. Success will be possible with the coordination and collaboration from all parties in the country including government, private sector, education sector, public/NGOs sector, and religious sector based on participatory Civil-State concept. (Figure 6) Obviously during the first five months of the ban of single-use plastic bags, the country reduced the use of plastic bags by 2 billion, or about 5,765 tonnes resulted from the collaboration from giant retailers, plastic manufacturers, and leading shopping malls and convenience stores as well as the consumers themselves.
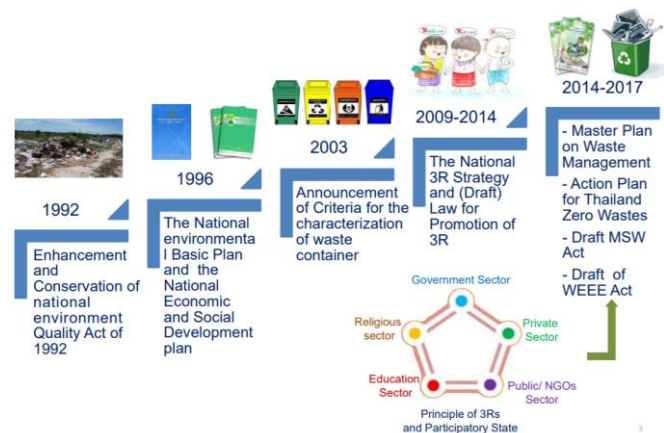
Figure 6. Principle of 3Rs and Management Timeline [16]

Thailand developed its masterplan and roadmap for sustainability consumption and production based on Sufficiency Economy Philosophy (SEP). It is a development plan on a balance between the conservation and the utilization of natural resources [17]. Three main strategies include 1) Enhance and develop the potential of human capital; 2) strengthen the economy and enhance competitiveness on a sustainable basis; and 3) promote green growth for sustainable development. Systematic policies, measures and mechanisms were established to advance sustainable consumption and production in all sectors including the government, manufacturing and services and

civil society, as well as promoted the mindsets of responsible consumption and production.

IV. SUFFICIENCY ECONOMY PHILOSOPHY FOR SUSTAINABLE ZERO PLASTIC WASTE

Due to the increasing demand of plastic products, global production of plastics in 2018 almost reached 359 million tonnes, 51% of which is distributed in Asia. Of all plastic production, packaging is accounted for 39.9% which is the highest plastic demand computed by segment [18]. It is estimated that 8 million metric tons of plastics enters our ocean every year accumulating with the estimated 150 million metric tons that currently circulate our marine environments. And if we don't take any action, the ocean could be filled with 250 million metric tons in less than 10 years [19].

Thailand is one of the biggest plastic waste polluters that ranks 6th place of world biggest contributor of ocean waste. Each year 1.03 million tons of plastic waste is generated worldwide, with 3% of which finding its way into the ocean [20]. The masterplan and roadmap for sustainability consumption and production is developed on the foundation of Sufficiency Economy Philosophy (SEP). It focuses on the 3R concept to manage municipal waste, including plastic waste, by promoting waste reduction, reuse, and recycle approach. The government has also launched different measures to tackle plastic problems such as the ban of three types of plastic—microbeads, cap seals and oxo-degradable plastics; promoting biodegradable plastic packaging by allow companies to claim deductions of up to 1.25 times for expenses if they buy biodegradable plastic packaging during 2019-21 [21]. Although the plan aims to reduce plastic waste and expects to use 100% recycled plastic by 2027 with the attempts from the government to achieve the plan, the 3R concept has not been implemented well enough. The main reasons include too much demand and production of plastic, lack of knowledge on environmental problems from plastic, unawareness to conserve the environment, and unattractive incentives for sorting and recycling waste.

Sufficiency economy philosophy is considered a new paradigm for development and aims to improve human well-being as well as providing a balanced way of living for people. It comprises three principles which are moderation (knowing what is enough, not extreme and overindulgence), reasonableness (understanding the connection between cause and effect), and prudence (self-immune when facing sudden changes arising from internal and external changes) on the basis of virtues (positive values of a person or positive norms of a group) and knowledge. In the case of plastic waste management, Sufficiency Economy Philosophy can guide individuals to practice 3R concept or even 5R.

It is important to help practitioners realize the real value in the practice of plastic waste management through educational programs and campaigns. Individuals know the situation of plastic waste in their society and understand its harm to the environment. They are aware the impacts of their actions and consumptions that may have on the environment, and subsequently their livelihoods. This awareness can lead them to lower their demand on the plastic items or refuse to get more new items while the existing ones are still usable. For example, they reuse the plastic utensils which still works without replacing them with new ones; refuse single-use plastic bags, cups, and straws; carry cloth bags and reusable plastic containers with them. Consumption with reasonableness and with consideration in all modes of conduct could prevent the long-term impacts on society and environment. With the awareness, they are willing to sort the plastic waste for recycle and recover other broken items to make them usable again. This systemic practice can be started from an individual or a household and shared to others in the community, then one community to other communities. When communities follow these practices and implement the waste management program effectively, those lessons have too frequently been replicated elsewhere.

With the intervention from local authorities, private agencies, volunteers or activists to provide information about the situation of plastic waste and its harm to life and environment as well as proper sorting practices for different types of plastic, an individual, household, or community can start their plastic waste management based on sufficiency economy philosophy. To encourage people, households, and communities to implement this waste management practice in long term, the government and business sector can work together on incentive programs to reward the practitioners who join the recycling activities. The rewards can vary from cash, discounts from local stores, vouchers from shopping malls, or even social recognition. (Figure 7) For low-income households, the government can also provide youth with employment opportunity as collectors and sorters. It is also important to monitor those practices and evaluate progress of the management program through following up and evaluation scheme. The government and local authorities also need to provide necessary tools such as recycling bins and collection schedule for local communities.
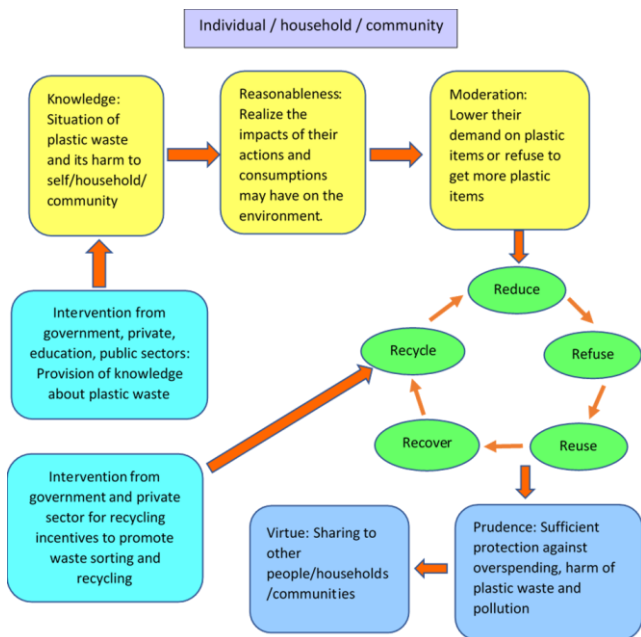
Figure 7. Plastic Waste Management based on Sufficiency Economy Philosophy

The sustainable waste management should not only simply inform people the plan and the target, but the government and local authorities should actively take action with collaboration from business sector, education sector, and public sector to provide them practical sustainable consumption patterns and should define what the consumers can do to reduce negative impacts that threaten sustainability (through purchase, use, re-use or disposal). For the change of behaviour to be sustained and not only be adopted short-term or for one time, a longer-term relationship should be built with the consumers to embed new consumption behaviour. The progress on plastic waste management resulted from the behaviour change should be monitored and informed to the people in communities. The sustainability information should be added in educational programs for consumers to better understand and act on sustainability issues.

The philosophy of the Sufficiency Economy guides individuals to live their lives and deal with problems with knowledge, reasonableness, prudence, moderation, and virtue. Thus, they not only live their lives in a balanced way, but they are able to maintain sustainability for the future. By focusing on a balanced approach, Sufficiency Economy Philosophy promotes the nation to modernize without resisting globalization but provides a means to counteract negative outcomes from rapid economic and cultural transitions [22]. When applying the philosophy in plastic waste management approach, consumers, the key factor of waste reduction, will be more aware of the problem and take more action in the waste management practice. This can be applied to the individual level, the community level and the

national level. In addition, a way of life based on sufficiency economy principles can help individuals to create balance between their wellbeing and environmental sustainability, and be able to cope appropriately with significant challenges arising from extensive and rapid socioeconomic, environmental, and cultural changes in the world [23].

CONCLUSION

Thailand Environment Institute has revealed the fact in regard to environmental problems that plastic waste increased during the lockdown up to 15%, or up from around 5,500 tons a day to 6,300 tons a day due to the spread of Covid-19. Importantly, it is found that this increased amount of plastic waste related to the shift in people's lifestyle following the pandemic. In a post-COVID-19 world, people's behaviours and attitudes will change. From the basic practices like hand hygiene, to the digital platforms like distance learning and virtual meetings, we have seen that it is possible to change behaviours by leveraging innovation. The new normal will settle and stay with us long after the current crisis. Similarly, in fighting the plastic waste challenge, there is a real opportunity to effect lasting change.

Due to the increasing plastic waste problems, Thai government launched the plastic waste management roadmap (2018-2030) that targets to replace single-use plastic with environmental-friendly materials within 2022 and 100% recycling within 2027. The approaches will reduce plastic sent to landfills by approximately 780,000 tons a year, cut waste management budgets by Bt3,900 million annually, and reduce greenhouse gases by 1.2 million tons of CO2 equivalents. All parties should commit to collaborate with the government and local authorities under Thailand's 20-year National Strategy (2018-2037) that highlights growth and environmental-friendly wellbeing as well as UN Sustainable Development Goal 12: Responsible consumption and production. The Circular Economy concept is the key towards the goals with the waste management toward 3R approach.

To achieve zero plastic waste, a paradigm shift from reactive policies towards more preventive policies is needed. Philosophy of "Sufficiency Economy", which takes a middle path approach towards sustainable development on the foundations of moderation, reasonableness, prudence, knowledge, and virtue can work well with the 20-year roadmap in preventing households and communities from possessing excessive unnecessary things which finally turn into waste. With knowledge of plastic waste and its harm to environment, eventually to one's life, people will be aware of the problems. When realizing their actions threaten the environmental quality and sustainability, people will lower their demand of plastic items and start to follow the 3R, or 5R

concept. When their community free of plastic waste problem with the contribution of everybody in the community, they will continue this practice and even share their experience to other communities. Besides, the intervention from government and business sector for information update, tools and equipment, as well as recycling incentives can encourage individuals, households, and communities to practice this waste management approach in long term. The philosophy underpinned by knowledge and morality can lead the way to zero plastic waste management and towards sustainability.

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A Digital Circular Economy for Smart Cities

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Abstract—

Due to the growing global population, the middle class is estimated to reach 5 billion by 2030, and all countries aim to increase their prosperity. This has caused enormous stress on our environment and our resources, which are reducing and becoming more difficult to extract. What worsens the situation is that manufacturers and consumers have tried to produce and consume as cheaply as possible. That has created a linear economy where objects are briefly used and then discarded as waste. The purpose of this article is to review the concept of smart city and how it can be implemented to promote circular economy, to study the difference between of digital city, intelligent city, smart city, and eco-city, to examine the role of digital technology in solving complexity in circular economy and how its functionalities in circular business models. Three case studies: Alpha, Philips CityTouch, and ZenRobotics have been reviewed. The result showed that digital technology can be mainly used for data collection, data exchange, data storage, and data analysis. Data analysis functionalities can be identified as monitoring and reporting product location, product condition and product availability; notifying predictive and preventive maintenance; identifying remanufacturing opportunities; optimizing product's energy consumption; enabling recycling, remanufacturing, product design and pricing; creating the intelligent product and virtual communication. Digital technologies are effective enablers for moving towards a circular economy which can deliver benefits for economy and environment such as increasing efficiency of raw material, reducing resource extraction, stimulating innovative designs, promoting production and remanufacturing, ensuring better distribution, consumption, reuse, and repair, as well as reducing waste.

Index Terms— *Digital Technology, Circular Economy, Smart City, Circular City, Digital Circular*

I. INTRODUCTION

Cities now realize that becoming a 'smart city' is not an end state, but rather a process, which enables an efficient and ongoing evolution of technical solutions across city services. The key is being able to balance strategic vision with a practical plan that delivers near-term results while bolstering public support for more comprehensive investments in modernisation. Fundamentally, transformation is about resourcefulness. That is, using innovative technologies that enable communities to do more while using less [1]. In some cities, this may mean investing in smart water systems that help accurately track usage and minimise waste. Elsewhere, the priority may be accelerating adoption of carbon-free transportation. The trend in recent years of creating roles such as chief innovation, technology, or sustainability officers who assemble their own team is a major step in the right direction.

Digital connections all over the world are becoming broader and faster which provides a platform for businesses and industries to promote productivity and innovation. McKinsey Global Institute finds that the four commercial domains; mobility, healthcare, manufacturing, and retail, could increase global GDP by $1.2 trillion to $2 trillion by 2030, and the countries that are most connected today are capturing much of the value. Importantly, two billion new users are set to come online worldwide which generates another $1.5 trillion to $2 trillion in GDP impact, mostly in the developing world [2]. Therefore, smart technologies basically are tools for becoming more efficient in the economy. Now technology is being brought more directly into the lives of residents. Smartphones are now used widely in the city, sending instant information about transit, traffic, health services, safety alerts, and community news into millions of hands. That means technology and data have been used purposefully to make better decisions and deliver a better quality of life. It is found that cities can use smart technologies to improve some key quality-of-life indicators by 10 to 30 % [3].

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A circular city is the city that adopts the principles of a circular economy across all its functions and establishes an urban system that is regenerative and restorative by design. These cities focus on eliminating waste, keeping assets at their highest utility at all times, and are enabled by digital technology. A circular city tries to promote prosperity and economic resilience in the city and its people, while separating this value creation from the consumption of finite resources [4].

II. SMART CITIES

A smart city is a city that uses different electronic devices to collect data, and the date is processed and used to manage resources, assets, and services efficiently; in return, that data is used to address problems in the city and improve the operations across the city [5]. Smart city policies are not fixed, they can change according to the priorities of the city. For example, Korea offers an interesting example of how smart city policies have changed over time. Smart city in Korea is viewed as an engine of future growth, and also needs to be a place for innovative job creation rather than focusing on solving urban problems. That's why the smart city concept in Korea expanded to meet the perceived global standards of smart cities (Figure 1) [6].
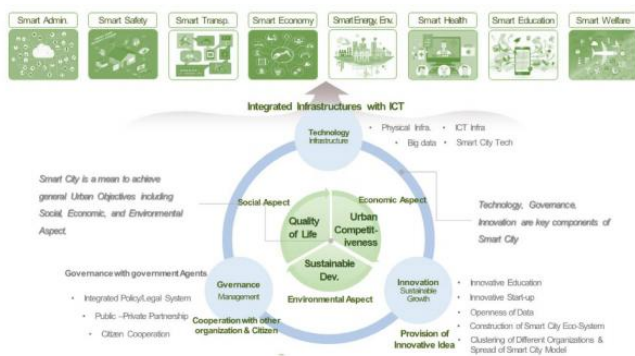
Figure 1. The renewed smart city concept in Korea [7]

There has not been unanimous agreement on what a smart city is and how it should be designed. However, smart cities mostly involve using digital innovation to manage the urban service efficiently as well as promote competitiveness and sustainability of a community. While digital innovation is a key element of the smart city concept, it is questioned whether investment in smart technologies and digital innovations ultimately contribute to improve the well-being of citizens. According to OECD, smart cities are defined as "initiatives or approaches that effectively utilise digitalisation to promote citizen well-being and deliver more efficient, sustainable and inclusive urban services and environments as part of a collaboration from multi-stakeholders" [8]. This definition focuses on four main issues: [9]

1. the need to document better the contribution of smart cities' to improving the life of people while continuing to deliver solutions to some of the most common urban challenges in a sectoral or multisectoral fashion;

2. the importance of stakeholder engagement in local governance and collaborative partnerships to boost civic engagement and leverage the role of the private sector in decision-making at the local level (citizen participation and feedback; co-creation and co-production models; citizen-centered services and engagement platforms);

3. the value of experimentation with public access to open data and collaboration within/between cities; private-public-people; national-regional-local scale; and

4. the need for an integrated and holistic approach to address urban challenges through digital innovation in a city's governance, planning, and infrastructure investment.

The concept of the smart city has been accepted and used in many countries as a vehicle for urban sustainability. The smart city process is about gathering data to monitor and optimize resource use through technology, and it has been a fundamental concept of the circular economy principles [10]. In India, Ministry of Housing and Urban Affairs responsible for 100 cities under the program 'Smart Cities Mission' explained that a smart city provides for the aspirations and needs of the citizens with the aim of urban planners to develop the entire urban eco-system covering comprehensive development in four domains including institutional, physical, social and economic infra- structure. Due to its investment in long-term infrastructure to improve citizens' quality of life through the smart city mission, it could incorporate circular economy principles into the design of the infrastructure to provide water, sanitation, and waste services at scale as well as create effective urban nutrient and material cycles for the citizens [11]. Also, the better systemic planning of city spaces which is integrated with circular mobility solutions can increase air quality, lower congestion, and reduce urban sprawl. Flexible use of buildings and urban spaces which is enabled by digital applications, can increase utilization rates, getting more value out of the same assets. Higher efficiency and lower overall building and infrastructure costs could help meet the housing needs of the urban poor without compromising safety and quality.

According to the Ellen MacArthur Foundation report, three focus areas of the Indian economy and society include cities and construction, food and agriculture, and mobility and vehicle manufacturing [12]. The assumption that the Indian businesses should lead the way in the transition phase, with policymakers simultaneously setting the direction and creating the right enabling conditions could

be discussed further. The transformation from a linear to a circular economy would require restructuring of production and consumption to promote environmental, social and economic sustainability [13].

III. DIGITAL CIRCULAR ECONOMY

A circular economy is one that aims to eliminate the concept of waste, emphasizing principles like durability, renewability, reuse, repair, and reduce material use. The concept seeks to bridge both environmental and economic concerns, according to Accenture, transitioning to a circular economy could unlock $4.5 trillion of economic value, while also making businesses and communities more resilient [14].

Digital technology is incorporated into the cities according to the degree and nature of the technology capacity of the city from Digital Cities to Intelligent Cities to Smart Cities. Digital Cities integrate digital technology into the main infrastructure systems of the cities, while Intelligent Cities use the Digital City infrastructure to build intelligent buildings, transportation systems, schools, enterprises, public spaces, and public services, and integrate these into intelligent urban systems. Smart Cities install intelligent urban systems to promote socio-economic and ecological development, and to improve quality of life as well as address the origins of social instability in cities.

A Digital City is clearly based on the integration of digital technology into the city infrastructure system. However Intelligent Cities and Smart Cities incorporate more technology application including innovation, learning, knowledge creation and problem solving. Smart cities are different from Intelligent Cities because they emphasize on social and ecological aspects through people and environment dimensions. And Eco-Cities emphasize balanced co-existence of nature-made and human-made environments. Table 1 illustrates the major differences between the four models of cities.

Table 1. Comparing Digital City, Intelligent City, Smart City and Eco-City Models

Digital City	Intelligent City	Smart City	Eco-city
Informatics (communication)	Intelligent systems (functionality)	Social and human concerns (quality of life)	Natural eco-systems
City portals for online information services	Online web-based e-learning systems integrated and interoperable with other city platforms	Ecological systems (sustainability)	Economic development while protecting the environment
		E-Learning platform and knowledge management	
		Advanced visualization and simulation tools	
		Benchmarking requirements	

As digitalisation is designed to solve complicated problems, gearing the use of data and digitally-enabled solutions to address the sustainability crisis offers many

possibilities. Digitalisation can be incorporated into urban management system to boost the transformation towards a more sustainable circular economy. It can help to close material loops by reporting the availability, location, and condition of products. It helps businesses and industries manage their product value change more efficiently by reducing waste, extending product's life, and minimizing the transaction costs. Thus, it helps promote circular economy by closing the material loops, slowing the material loop, and narrowing the loop with increased resource efficiency.

Besides being used for tackling complexity in industrial processes and optimising manufacturing processes as well as promoting material efficiency in manufacturing firms, digital technology in term of 'smart technology' is also used in construction domain to promote efficiency and cost-effectiveness in construction. Some examples include responsive heating, ventilation, and air conditioning (HVAC) systems, as well as smart meters that can provide greater transparency on energy consumption and cost. Other solutions are retrofit in existing buildings such as improving insulation and incorporating smart meters are estimated to reduce energy consumption by 20-30 %. Other more technologies that can be integrated in building to promote energy sustainability such as solar PV (photovoltaic) can help in the transition towards buildings as producers of energy rather than mere consumers. Green roofs, the same direction of technology, are also used to filter and capture rainwater. Recirculation of water within homes is another way to reduce a home's resource consumption. Figure 2 below illustrates some of the ways technology can unlock the circular potential in the built environment.
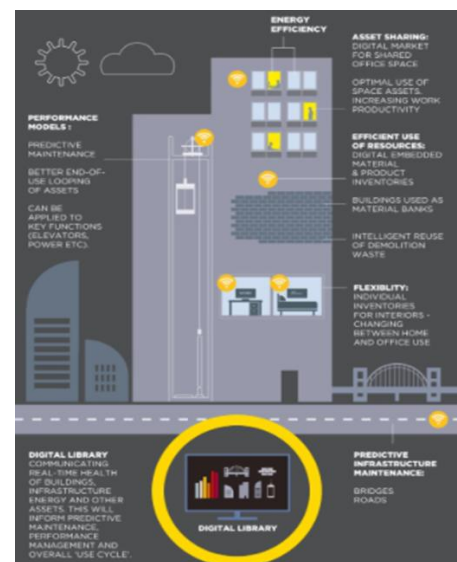
Figure 2. Connectivity for Buildings [15]

However, many challenges need to be solved, in order to gain the desired benefits and achieve digital

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technology-aided circular business models implementation. City planning should involve the issues of social inclusion, economic development and environmental protection, deploy public policies in pursuit of sustainability, and leverage digital technology in formulating and implementing such plans. City planning cannot be effective without learning from other cities, e.g., through the bench-learning, defining measurable goals and indicators, and deploying monitoring mechanisms to assess to what extent the goals are being met.

In the decades ahead, our cities and communities are expected to make a great deal of move towards circular economy as their infrastructures come under continual pressure from expanding populations. According to the United Nations statistic, it predicts that two-thirds of the world's people will live in urban areas by 2050 and that requires serious attention. Cities have an opportunity to improve quality of life by working on major local issues such as water and air quality, resource scarcity, traffic congestion and road safety as well as digital inclusion. Cities are also stepping up as key leaders in achieving environmental sustainability which is the priority of climate change action. If they are to achieve all of this, cities and communities must transform themselves into far more intelligent and agile organisations that can react and be flexible to the needs of citizens and businesses as well as respond to global demands and opportunities. As technology matures and new innovations emerge, cities and communities are empowered with even better solutions to become more efficient, sustainable and resilient. In short, if they are to be judged as successful, smart communities must ensure they deliver a social, economic and environmental benefit, providing a three-dimensional return on investment (ROI).

The digital/ICT industry has a significant environmental footprint. Data centers, digital devices and digital infrastructures require (often critical) levels of energy and materials. ICT accounts for 5 to 9% of the total electricity demand (associated with GHG emissions) with a potential increase to 20% by 2030, as the demand for data centers, cloud computing and other energy-intensive technologies (e.g. blockchain) increases [16]. When considering the amount of energy digitalisation requires, these developments can also bring with them a transition in our energy system (e.g. increasing energy efficiency and share of renewables). Simultaneously, resource use and waste are a problem. The world produces annually 5 million tonnes (MT) of e-waste in 2019, and the amount is increasing due to rapid technical development [17]. This is a missed economic opportunity, as enormous amounts of valuable, critical materials are thrown away. Landfilling and informal recycling of e-waste also produce unwanted health and pollution impacts.

Smart City initiatives need to overcome or provide solutions to different types of challenges as follows: [18]

1) Economic Challenges – Examples include improving local competitiveness against regional and international markets, diversifying economic activities, obtaining funding for Smart City initiatives, overcoming spatial inequalities in productivity and income, reducing pressures to the resource base due to growth of urban populations, reducing capital and operational expenditures, facing budget cuts affecting local governments, and controlling efforts driven by wild capitalism.

2) Social Challenges – Examples include ensuring equity and fairness, reinforcement of social and territorial cohesion, ensuring social inclusion, addressing political and ethnic tensions, increasing burden on adult social care, providing services for different communities in the city, and leveraging human capital.

3) Environmental Challenges – Examples include protecting natural resources and green areas, reducing emissions generated by transport systems, reducing energy consumption or using renewable energy, addressing environmental degradation caused by urbanization, following green practices, reducing dependency on gas and oil and air pollution, as well as addressing the scarcity of natural resources.

4) Technical Challenges – Examples include deployment of integrated city infrastructure and service platforms, solving machine-to-machine communication, ensuring system and data security, managing spectrum utilization, defining and adopting interoperability standards, providing analytical methods needed to integrate qualitative and quantitative data from various sources, making optimal use of interconnected information for improving efficiency of city operations, optimizing the use of limited resources, providing the appropriate technology when needed, ensuring a proper solution or a good practice to the local conditions, and producing and delivering scalable solutions.

5) Service Delivery Challenges – Examples include increased demand for energy, water and sanitation; increased waste generation and shortfalls in municipal budgets to collect and proper dispose of waste; increased requirement on housing and transport systems; improving public safety by reducing crime and emergency response time; minimizing traffic congestions; ensuring the construction of comfortable city facilities and buildings; improving quality of services by providing innovative services and streamlining and tailoring services to address citizens' needs; ensuring the right levels of security and resilience across delivery models; updating new releases of public services without major disruptions against ongoing service delivery; ensuring 24/7 service availability and customers' satisfaction by maintaining data and information up to date.

6) Financial Challenges – Examples include ensuring availability of financial resources; addressing possible lack of capacity for attracting investors; ensuring the construction of cost-effective buildings and facilities; reducing operational costs; and delivering long-term sustainable solutions.

7) Governance Challenges – Examples include engaging private sector in testing solutions, adopting decisions and proposals made by citizens; defining the proper role for private sector actor interventions – defining how, where, and when they should be engaged; attracting talent; enabling distributed implementation and execution by different stakeholders supported by central coordination; and establishing a governance committee with broad representation of government levels and societal sectors.

8) Institutional Challenges – Examples include ensuring departmental coordination and alignment, overcoming bureaucracy in government agencies, attracting qualified IT professionals and relevant IT players, and having qualified human resources for service delivery.

The major economic benefit that the circular economy provides at a macroeconomic level is that it is able to decouple economic growth from resource consumption. Many social aspects would be influenced by the adoption of a circular economy, including an increase in employment opportunities (i.e., in Europe alone, the transition towards a circular economy is estimated to generate 580,000 jobs [19]. Moreover, more resilient cities would be generated, providing a healthier space for citizens to live in. The circular economy has the potential to reduce the input of resources (e.g. energy) and output of materials (e.g. CO_2 emissions). There, however, are still challenges need to be addressed. The first challenge is initial investments such as the adoption of new technologies. Second, how cities promote understanding and develop correct measurement of circularity performance. Third, the benefit of the adoption of new practices and the return on investment are still unclear. Additionally, thinking systemically and leading by example is necessary rather than thinking of individual impacts as an isolated and innocuous impact in the world. It would be beneficial if each of us thinks about our impacts as part of a bigger system.

IV. DIGITAL CIRCULAR ECONOMY: CASE STUDY

Circular Economy (CE) is an economic system aiming to close material and energy loops in production and consumption systems. Digital technologies (DT), such as Internet of Things, Big Data Analytics and Artificial Intelligence can effectively support the Circular Economy implementation [20]. Following are some case studies of circular economy integrated the use of digital technology.

Alpha Case: Alpha is a household appliance retailer in Northern Europe. Instead of selling the electric appliance such as washing machines and dishwashers to households, it offers service contracts/subscriptions which customers can access and use the appliance on the monthly-payment or pay-per-use basis [21]. With the use of IoT kit, the stand-alone appliances are transformed into smart and connected products [22]. The IoT technology enables the tracking and monitoring of product activity during the usage phase. The information collected by IoT is also used for providing better technical support in the field [23]. Besides, IoT enhances renovation and end-of-life activities because the company knows the appliance position in real time, and they can organize better collection activities when each subscription ends. Moreover, information regarding product status and condition may be useful to enhance other closed-loop activities, such as refurbishment, remanufacturing, and recycling.

Philips CityTouch case: This business model is the cooperation between city authorities and Phillips. The lightings are remotely managed on the cloud-based platform through the IoT network created by intelligent lightings. These intelligent lightings allow Philips to offer remanufactured products and not to lose the value embedded in the used city lightings. The company, city authorities and the intelligent lightings communicate through lighting management software. Philips can maintain the system, city authorities can control the system and lightings are acting as an intelligent object that can communicate with them. Thus, with this control mechanism, the stakeholders can save energy and material by optimizing energy consumption of the lightings and generate more revenue from the retrieved value of remanufactured re-source [24].

ZenRobotics case: This waste management solution uses AI algorithms to enable the main activity of recycling: waste sorting and reprocessing of materials. In order to achieve a high rate of pure secondary materials, it is essential to start with accurate waste separation for the right recycling process. With user-friendly AI software, the waste robots can be trained and interface. Thus, this technology suits to different industries and to different waste types. It is also a suitable solution for enterprises seeking to create partnerships with recycling firms using this kind of intelligent solution. With the use of AI, it is easier to use retrieved resources to offer recycled products and to create positive impact for the environment. ZenRobotics offers the least expensive and the most efficient solution to waste separating [25].

It can be seen that digital technology is mainly used for data collection, data exchange, data storage, and data analysis. Data analysis functionalities can be identified as monitoring and reporting product location, product

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condition and product availability; notifying predictive and preventive maintenance; identifying remanufacturing opportunities; optimizing product's energy consumption; enabling recycling, remanufacturing, product design and pricing; creating the intelligent product and virtual communication. Digital technologies are effective enablers for moving towards a circular economy which can deliver benefits for economy and environment such as increasing efficiency of raw material, reducing resource extraction, stimulating innovative designs, promoting production and remanufacturing, ensuring better distribution, consumption, reuse, and repair, as well as reducing waste (Figure 3) [26].

Figure 3. Digital Circular Economy (modified from Circular economy www.europarl.europa.eu) [27]

The United Nations SDGs call for action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity.' The seventeen Global Goals came into effect in 2016 with the aim to guide the world towards a sustainable development path by 2030. The circular economy, thus, has the potential to achieve many of these goals and sets out a clear framework for practices towards the goal. When it comes to approaching the goals, a systems perspective that recognises interconnections is crucial because all the goals aim to promote long term sustainable economic, social and environmental prosperity, aligning with the United Nation's Sustainable Development Agenda. The objectives include strengthening resilience to climate change, addressing environmental challenges like resource depletion and

pollution, increasing competitiveness and innovation, contributing to industrial modernisation and security, and supporting social cohesion. Data and digital-enabled solutions such as digital platforms, smart devices, the Internet of Things and blockchain, and artificial intelligence are already contributing to the circular economy. They are used inter alia to promote natural resources efficiency, help in design, production and consumption, as well as ensure reuse, repair, remanufacturing, recycling and improve the overall waste management. It is important to understand that a CE and digital transitions must be co-managed and employed as the means to ensure long-term prosperity in accordance with the SDGs, the Paris Agreement and climate-neutrality goals.

CONCLUSION

Cities now recognise that becoming a 'smart city' is not an end state, but rather a process, which enables an efficient and ongoing evolution of technical solutions across city services. The key is being able to balance strategic vision with a practical plan that delivers near-term results while bolstering public support for more comprehensive investments in modernisation. Every city has different demands and challenges. Fundamentally, transformation is about resourcefulness. That is, using innovative technologies that enable communities to do more while using less. In some cities, this may mean investing in smart water systems that help accurately track usage and minimise waste. Elsewhere, the priority may be accelerating adoption of carbon-free transportation. The trend in recent years of creating roles such as chief innovation, technology, or sustainability officers who assemble their own team is a major step in the right direction.

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Due to the socio-economic impact of the environmental crisis and of the ongoing climate changes, all stakeholders should work together towards a circular recovery and a more resilient future. A systemic shift to a circular economic model is required to achieving climate neutrality, fostering a thriving society, and keeping resource consumption within

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planetary boundaries. Circular economy is a transition from linear take-make-use-dispose to a close-loop of production and consumption. It needs collaboration from citizens, businesses and the research community to enable its function in an integrated way. It is a business model decoupling resource use from economic activity by maintaining the value and utility of products, components, materials and nutrients for as long as possible, in order to close material loops and reduce harmful resource use and waste generation. Through this circular transition, we can improve human wellbeing, reduce emissions, protect and enhance biodiversity, and promote social justice, in line with the Sustainable Development Goals.

Cities are center of innovation and socio-economic transformation and have potential to lead the transition to a circular economy. They are a place to foster a circular economy and lead the way towards a more sustainable, resilient future. The key is building in flexibility from the start with open platforms and partnering with an ecosystem of vendors who understand the importance of working together and ensuring their technologies talk to each other. Digital technology can be functioning for data collection, data exchange, data storage, and data analysis. With digital technology support, businesses and industries can monitor and update product location, product condition and product availability as well as optimize product's energy consumption, recycling, remanufacturing, and product design. Digital technologies are effective enablers for moving towards a circular economy which can deliver benefits for human, society, economy and environment in a sustainable way. According to the United Nations, circular cities will be a major engine for pursuing the Sustainable Development Goals.

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The 9Rs Strategies for the Circular Economy 3.0

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Abstract—

Circular economy (CE) was first introduced in the 1970s as an alternative economic model for replacing the traditional linear industrial economy, the take-make-use-throw approach. However, transition to a more circular economy can be challenging due to the untenable assumptions. It is viewed as a strategy enabling the 'decoupling' of resource use from economic growth, but there are still questions whether the CE can decouple resource use from economic growth. The purpose of this article is to study the evolution of the circular economy and the synthesis of the 10Rs hierarchy, to examine the circular economy roadmap and to review the strategies of 9Rs and the benefits of circular economy. Documentary study and literature review were used for data collection. It is found that the history of circular economy started as early as before World War II, known as closed economy. Then, the concept of circular economy evolved to CE 1.0, CE 2.0, and CE 3.0 since 2010 onward. Although 10R hierarchy (from R0-R9) was proposed to solve confusion around new conceptions of circularity, the waste-to-energy (Recovery) does not promote resource efficiency when considering the loss of value of potentially recyclable materials through combustion. Circular Economy, when successfully implemented, can clearly bring environmental, social and economic benefits. However, a CE roadmap should integrate the key stakeholders' views on the essential developments and actions required for the transition as well as clarifies their own role in the transition.

Index Terms— *The 9Rs strategies, Evolution of Circular Economy, the Circular Economy 3.0*

I. INTRODUCTION

It has been estimated that 20% of global material extraction ends up as waste [1]. To minimize waste at best, products must be designed and industrial processes must be done to keep resources in use in a perpetual flow, a full circular economy. The circular system aims to optimize the use of pure raw material by designing products to be easily maintained, reused, repaired or refurbished to extend their useful life, then, to be easily disassembled and recycled into new products, with waste reduction concept at all stages of the extraction-production-consumption cycle [2].

The development of the concept of circular economy for products and materials aims to increase circularity of the materials used in production and consumption. The concept of circularity has already been implemented in different parts of the globe with regards to longer loop value retention options, such as energy recovery and recycling. The EU and the UN basically suggest 3R's concept which has been used widely in many national waste regulations all over the world.

To implement a circular economy, it is important to define what producers should actually do to achieve the greatest impact. These action imperatives have been expressed as the various R's based on preference and priority [3]. When using a 3R's to 10R's waste hierarchy, even the one's using 3R's or 4R's do not refer to the same R's [4]. R-imperatives are conceptualized differently among different scholars and disciplines. Different numbers of R-imperatives, such as 3Rs, 4Rs or 6Rs in different groups assign different attributes and meanings which implies divergent conceptualizations of the key circular economy principle. From different academic backgrounds such as environmental sciences, engineering, logistics, policy studies and more, it is found that there is complexity around the 3 or more R's as value retention imperatives [5].

A circular economy offers a path to reduce future resource and material supply chain risks for industries and businesses as well as increase their resilience to the shortage of supplies and sudden changes in prices. It also helps reduce

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resource dependency, spur innovation and increase competitiveness. Besides, the circular economy is an opportunity for economic and industrial renewal with a related increase in investments. Transition to a circular economy can be challenging, especially for companies whose structures, strategies, operations and supply chains are deeply rooted in the linear approach. Although the transition to a circular economy often offers economic benefits, it is necessary to change production processes from linear to circular, which may require initial investments, modification of processes, feedstock, re-training of staff, and coordination within the wider value chain.

II. EVOLUTION OF CIRCULAR ECONOMY

Circular economy (CE) was first introduced in the 1970s as an alternative economic model for replacing the traditional linear industrial economy. The linear economy is based on a linear process of take-make-use-dispose emphasizing towards high throughput and low production costs relying on the abundant availability of raw materials at relatively low cost. The traditional process consists of a series of steps including resource extraction, manufacturing, consuming and disposing of products at the end of their life cycle. On the contrary, the circular economy aims at lowering environmental impact by reducing the use of raw material, minimising waste at the end of their lifespan, as well as turning waste into resources for others through re-use, re-manufacture, re-cycle, waste reduction and other practices. In other words, CE focuses on material restoration through design and intention [6].

Since the early 2010s, there have been concerns about environmental issues including resource scarcity, especially strategic resources, such as rare earth elements; and negative environmental impacts of unsustainable production and consumption [7]. The main economic reasons are the suddenly rising commodity prices and the potential economic benefits of new markets for the circular economy business models [8]. In December 2015, the European Commission launched the Circular Economy Action Plan, particularly focusing on circular economy as its new mainstream sustainable development framework. The European Commission's plan suggests that the EU economy change the five stages of the lifecycle of products and services: 1) design, 2) production, 3) consumption, 4) waste management and 5) secondary materials treatment. The plan also defines five priority areas, which face specific challenges. According to the Action Plan, relevant legislation was amended between 2015 and 2019 for addressing these challenges by starting with proposed directives on waste, landfill and increased usage of organic and waste-based fertilizers [9].

According to EU policies, moving towards a circular economy can help Europe achieve its commitments under the UN Sustainable Development Goals (SDGs). In fact, circular economy contributes to many of the 17 goals either directly or indirectly. It has the most impact on Goal 12 which aims for sustainable consumption and production while it indirectly impacts on Goal 7, Goal 11, Goal 13, and Goals 14 and 15 focusing on clean energy, sustainable development, climate action, and ocean and terrestrial ecosystem protection respectively.

During the last decade, the concept of the 'circular economy' (CE) has gained increasing attention from different countries around the world as the global organizations like the OECD, the WEF, and UNEP have actively promoted the urgency of closing materials loops through various reports and events. Japan and China were the first Asian countries introducing the CE policies at the national level. Many countries In Europe, most notably Denmark, Germany, the Netherlands, and the UK are taking lead in implementing CE initiatives, policies and pilot programs. The European Union (EU) is also following suit with a CE action plan, including legislative proposals [10].

However, transition to a more circular economy can be challenging due to the untenable assumptions. Circular economy is widely viewed as an alternative model of production and consumption that enables economic growth without threatening the natural resource. It is viewed as a strategy enabling the 'decoupling' of resource use from economic growth, thus, contributing to sustainable development [11]. There are still questions whether the CE can decouple resource use from economic growth [12]. The 2011 UNEP [13] report on "Decoupling Natural Resource Use and Environmental Impacts from Economic Growth" disclosed that related sustainability concepts and approaches such as eco-efficiency, Cleaner Production (CP), and Industrial Ecology (IE), have partly, not absolutely, contributed to achieving the decoupling. Therefore, there is still a concern that circular economy has been argued to lack conceptual clarity and an accepted definition [14]. However, there recently have been literature reviews on key conceptual elements of CE and its link to other sustainability related concepts [15].

Circular economy has a longer history than the current use of the notion. In many parts of the globe, most notably in Europe, the term 'circularity' has long been known in the businesses and industries. In the following paragraphs, the history of the circular economy can be artificially divided into three distinct phases leading to the current framing of the concept [16]. Blomsma and Brennan [17] has also

provided a similar overview on circular economy which they characterize as an umbrella concept and as a 'new framing around expanding resource productivity'.

III. EVOLUTION OF THE CIRCULAR ECONOMY IN THREE PHASES

The history of circular economy started as early as before World War II. Some earliest directed examples of closing material loops could be dated back to the 19th century in the work by P.L. Simmonds (1814–1897). After World War II, "closed economy or spaceman economy" was introduced in the work by Kenneth E. Boulding, 1966 where he contrasted the 'closed economy' with the 'open economy' [18]. His essay is often cited as the first expression of the "circular economy" [19]. Besides, there has always been economic evolution of using waste and by-products such as dyes in petrochemicals (Ayres and Ayres, 1996). After then, the global economy has been growing and waste management becomes increasingly problematic and needs to be regulated. There are concerns in controlling and abating pollution but still lack of integrative waste management [20].

The first phase, during 1970 to 1990s, is the time of dealing with waste. During the 1970s, the 3R concept of 'reduce, reuse and recycling' increasingly gained attention alongside environmental movements in Europe and the US. Although there were no principles of waste prevention, most of businesses actively followed governments' regulation on pollution limitation through the policies such as "polluter pays". Due to the large amount of waste being treated outside 'one's borders' or even being dumped in less affluent countries, scholars and environmentalists became more concerned about waste problems and realized that local and global waste problems are connected and the problems will eventually affect the human, social, and economic wellbeing. In this phase, over 30 states of America considered or enacted restrictions on out-of-state waste and 140 recycling laws were enacted in 38 states [21]. Therefore, the roots of the circular economy can be said to lie in this phase.

The second phase, during 2000-2010s, circular economy has put in place specific and ambitious actions to reduce the use of raw material in Europe ensuring the circularity of materials, increasing the use of secondary raw materials and dealing with the waste at source. The action plan should include guidelines to promote the sustainable use of natural resources as well as circular and sustainable products. According to the European Commission's report in 2019, EU was successfully implemented the CE action plan it adopted in 2015. One of the actions was the revision of waste legislative framework aiming to reduce the environmental impact of selected single-use products made of plastic (Single-Use Plastics Directive) [22]. In the CE 2.0, the concept of environmental prevention such as Design for the Environment is also established in businesses. In the early of years 2000, scientific data on global warming, water shortages, loss of biodiversity also increases awareness on environmental sustainability. Digitalization and the internet also make information sharing faster and connect the local to the global environmental issues.

The third phase of circular economy, CE 3.0, from 2010 onward, although economic gains have been focused, sustainability becomes more challenging due to the population growth and resource depletion. More attention, hence, is paid to retaining the value of resources. And with the fear of unsustainability, nations become more aware of the excessive resource extraction [23]. From this context, nations agree on the newly developed idea of CE, decoupling growth from resource use [24].

One of decisive elements of a more transformative view of CE, nuanced material hierarchies as operationalization principle of CE, R-hierarchies or imperatives. Although the 3R-imperatives of 'reduce, reuse recycle' form an accepted notion of CE in theory and practice, there has recently been emphasis on more nuanced hierarchies with longer loop options like 'redesign', 'refurbish', 'repurpose' to promote the highest possible value retention of resources over multiple product life cycles. Varying numbers of R-imperatives, such as 3Rs, 4Rs or 6Rs, different author (groups) assign different attributes and meanings which implies that divergent conceptualizations of this key CE principle dominate the literature [25]. To respond the recent calls for better conceptualization [26], the most common perspectives on R-imperatives are reviewed and synthesized into a single systemic typology of 10 resource value retention options (ROs) or as a number of Rs. The 3R's concept has been synthesized and reorganized into a 10R hierarchy (from R0-R9); refuse, reduce, resell/reuse, repair, refurbish, remanufacture, repurpose, recycle (material), recover (energy), re-mine in order to solve confusion around new conceptions of circularity [27].

The 10R hierarchy has been distinguished into three different loops; from short loops (R0-R3) existing close to consumer; middle long loops (R4-R6) relating more in business activities with indirect links to consumers; and long loops (R7-R9) existing traditional waste management activities which includes recycling, different forms of energy recovery and, more recently, re-mining. While government policies in CE 1.0 and 2.0 focus on these options, they are viewed as the least desirable among many scholars who apply clear hierarchies with their R's. Although materials or particles received from longer loop recycling can serve as input for shorter loop R's, it is still challenging how recycled materials can be produced in higher-value application, especially in the countries where mass recycling is already

well organised (mostly in North-west and central Europe) [28].

IV. CE Roadmap

Transition to a circular economy can promote well-being and competitiveness, as well as ensure a sustainable future. The circular economy not only provides solutions to critical challenges we are facing such as overconsumption of natural resources, climate change and biodiversity loss. A road map towards a circular economy is an essential tool for change as it helps define what steps we should take, incorporate key stakeholders' views for the essential changes and outline actions required for the circular transformation. It also includes a vision and goals as well as tangible actions that will move country forward towards a circular economy.

Since the circular economy concept was introduced to address the environmental crisis, the potential research and innovation that can ensure its successful implementation need to be exploited before such crisis happens in order to facilitate the eco-friendly manufacturing systems that will increase the sustainability and resilience in ecosystems. The roadmap to circular economy should be designed to prepare the manufacturing and production system to face disruptive events such as COVID-19 pandemic, earthquakes, political and social conflicts. It should ensure raw materials and production supply, logistics and distribution, factories operation, international cooperation, as well as products and services needed to maintain citizens' health, welfare, and proper functioning of modern economies [29].

A circular economy road map should integrate the key stakeholders' views on the essential developments and actions required for the transition as well as clarifies their own role in the transition. It is a proven tool for engaging key stakeholders and creating shared understanding about the changes needed on the path towards a future that fits within the planetary boundaries and avoids shortfalls in well-being. (as figure 1) The participation of different groups is a matter of fairness too. In order to successfully start the implementation of the road map and achieve the road map goals, they need to be shared by all who are affected by the process. That is why co-operation based on trust is key throughout the process. At its best, a circular economy road map is a combination of strategy and action plan that will inspire others to become involved in the transition and generate new ideas, actions and initiatives among those who are participating.
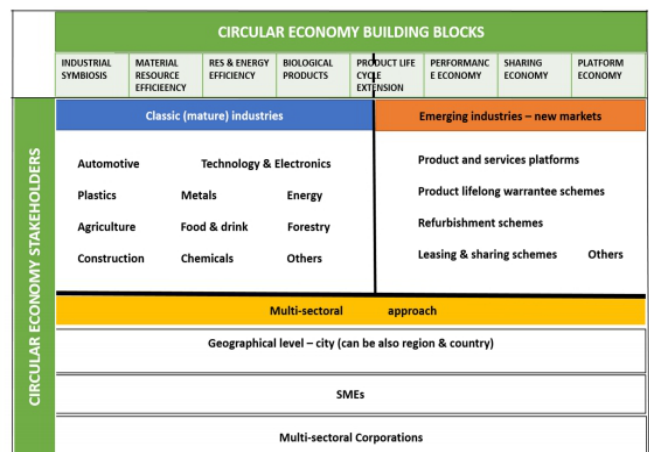
Figure 1. The Circular Economy Progress for Stakeholders (CEPS) framework [30]

While policy agenda has been set for the transition to a circular economy in Europe, the linear model of producing and consuming goods and services still exist. One reason is that circular economy concept is more complex, and eventually will affect all sectors of the economy. Policy-making is not effective enough for fostering this transition. Therefore, the CEPS Framework (Circular Economy Progress for Stakeholders Framework) which identifies relevance of circular economy to the different types of stakeholders in the circular economy – classic (mature) industries, emerging industries, SMEs, multi-sectoral corporations, cities and regions was introduced as a tool for policy-makers and business to identify sectors and stakeholders affected by the transition to a circular economy. Through the CEPS Framework, a standardised approach to policy-making can be established for the circular economy and for creating synergies between various building blocks and stakeholders. When incorporating the CEPS Framework into EU policy, Europe will be able to better exploit the opportunities offered by the circular economy. Besides, it will also strengthen the three 'pillars' of the circular economy: 1) environmental benefits, 2) cost savings from reduced natural resource needs and 3) additional economic benefits reaped from the creation of new markets [31].

Moving towards a circular economy can be challenging, but it's worth for people, nature, and economies. We all need to come together to be better consumers. A circular economy is not only about consuming less, it is also about consuming better. As a consumer, it means we will make our choices on products and services in a more sustainable version or those can be recycled. It can also mean changing what we consume which offers emissions and other natural resource benefits. Consumer awareness of sustainability is on the rise globally, with the majority of consumers expect brands to do what is right.

V. CIRCULAR ECONOMY STRATEGIES: 9Rs

To prevent excessive and rapid environmental degradation and social inequality on both a local and global level, circular economy can be viewed as a means to an end. It offers transformative measures to cut greenhouse gas emissions while promote circular and low-carbon agenda. Circular business models and improved resource efficiency are also a means to lower the emission, reduce extraction and could improve supply security when materials are kept in the region. Ultimately, it helps us achieve ecological safety and provide more space for humankind. The key concept of a circular economy is to recycle materials from waste in order 'to close the loop'. It is also a framework for recovering energy from waste and it aims to eliminate waste. In the case that waste is unavoidable, it must be adequately controlled to be safe for human health and the environment.

Table 1 propose the 9Rs hierarchy from Refuse (R1) to Recycle (R9). It does not include a further R strategy—the Recovery of (embodied) Energy from waste and residues, which is often mentioned in combination with the 9Rs. (as table 1) Upon the view of waste management, energy recovery is an environmentally friendly option comparing to landfill disposal according to the waste hierarchy principle. However, the waste-to-energy does not promote resource efficiency comparing to other 9Rs, when considering the loss of value of potentially recyclable materials through combustion. Hence, the activities of energy recovery are not considered as substantially contributing to the circular economy in this 9Rs hierarchy [32].

Table 1. Circular economy strategies [33]

R	Strategy	Description
R1	Refuse	Make product redundant by abandoning its function or by offering the same function by a radically different (e.g. digital) product or service
R2	Rethink	Make product use more intensive (e.g. through product-as-a-service, reuse and sharing models or by putting multi-functional products on the market)
R3	Reduce	Increase efficiency in product manufacture or use by consuming fewer natural resources and materials. It includes the prevention of food waste along food value chains including in agricultural production, processing, manufacturing, distribution and consumption
R4	Reuse	Reuse of a product which is still in good condition and fulfils its original function (and is not waste) for the same purpose for which it was conceived
R5	Repair	Repair and maintenance of defective product so it can be used with its original function
R6	Refurbish	Restore an old product and bring it up to date (to specified quality level)
R7	Remanufacture	Use parts of a discarded product in a new product with the same function (and as-new-condition)
R8	Repurpose	Use a redundant product or its parts in a new product with different function
R9	Recycle	Recover materials from waste to be reprocessed into new products, material or substances whether for the original or other purposes. This includes the reprocessing of organic material but does not include energy recovery and reprocessing into materials that are to be used as fuels or for backfilling operations

Solutions to the resource, waste and environmental degradation challenges have been discussed and worked out for more than half a century. The circular economy is a tool for combating waste by continuously improving and redesigning economy to retain the quality of products and natural resources longer in the economy, before discards

them as waste. The improvements need to be done in the way the extraction, use and depletion of renewable resources does not exceed the speed of the regenerative cycle for nature to replenish them [34]. The CE is defined as a set of common economic behaviours based on the 9-R concept or "R-behaviours" that promote the transition to a circular economy. These behaviours were originally called as the 3-R concept (reduce, reuse, recycle). Then, the concept is expanded to the 6-R (with the addition of recover, redesign and remanufacture) and later evolved into the 9-R concept (with the further addition of refurbish, repair and refuse). The circular economy based on these 9Rs is more than waste reduction [35].

The key reason for having 'Refuse' included in the 9Rs hierarchy is that it helps reduce the risk of hazardous chemicals running back into the circular economy. (as figure 2) The hazardous chemicals, for example, some flame retardants, used in electronics products, should be removed and replaced at the design stage. To encourage the CE efficiency, these substances can be removed at the recycling stage, but effective removal is often nor technically nor economically viable. The hazardous chemicals in products are viewed as an impediment to a circular economy [36].
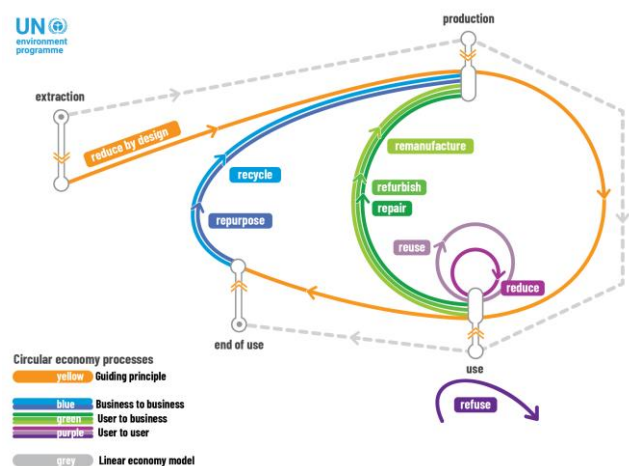
Figure 2. The UNEP Circularity approach using the 9-R concept [37]

CE promoting behaviours related to the Circularity and 9-R concept serve the double purpose of mitigating linear risks, as well as to identify business opportunities. Replacing the take-make-waste linear economy principle with circular economy will help nations tackle complex and systemic challenges by rethinking and reengineering. This is a gradual process that can be accomplished by supplementing our economies with these virtuous economical "R-behaviours". However, the transition still lack of financial support despite the growing recognition of the effects of economic activity on climate, biodiversity,

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ecosystems, water, soil, air and society over the past two decades [38].

Circular Economy, when successfully implemented, can clearly bring environmental, social and economic benefits. Potential economic growth is expected to be worth 4.5 trillion dollars globally. Without transition to circular economy, we will find ourselves in a destructive environment, a surge in prices and inundated with waste [39]. In circular economic system, there are more collaboration among companies, public administration, and researchers, and even consumers to make waste of a process of production and consumption circulate in the system. Circular Economy also improves product quality and saves production cost as it focuses on products with longer life and being able to upgrade and repair. Implementing the circular economy approach in manufacture of more durable products can save be-tween €340 to €630 billion per year in the EU alone [40]. As consumers become more aware of how product is made and what impact it brings to the environment, the companies included in the circular economy context will find themselves more competitive. Besides, CE can reduce environmental impact as it can lead to reduction of resource extraction, lower greenhouse gas, and decrease of waste. (Figure 3)
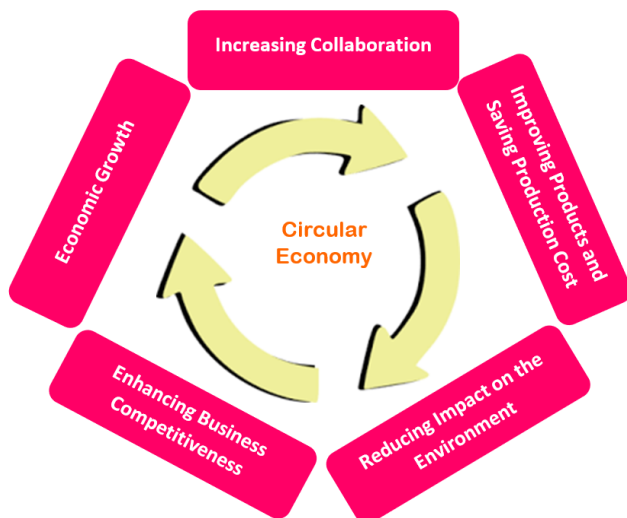
Figure 3. Environmental, Social and Economic Benefits of the Transition to Circular Economy

CONCLUSION

The circular economy is gaining more attention as it aims to reduce the pressure on the ecosphere through a number of strategies. A circular economy is an economic approach that involves separating economic activity from the consumption of finite resources, and designing waste out of the system. It helps minimize resource extraction, waste,

emission, and energy leakage by slowing, narrowing, and closing energy and material loops. This can be achieved through refuse, rethink, reduce, reuse, repair, refurbish, remanufacture, repurpose, and recycle. With all the knowledge, power and collaboration we have, we can move towards circular economy. Replacing the take-make-waste linear economy principle with circular economy will help nations tackle complex and systemic challenges by rethinking and reengineering. Although it takes deep collaboration between business, government and civil society, the rewards will be well worth it as economy and environment will become more sustainable and resilient to disruptive events such as pandemic, natural disasters, political and social conflicts. People and nature will be able to live together in harmony. Realizing both the urgency and the opportunity, an increasing number of countries and national governments are now beginning to shape their strategies in order to support investment towards sustainable and specific circular economy agendas.

This new economic model represents sustainable green growth, moving from a consumption to a system that extends the life of products and materials and minimizes waste. The circular economy can bring many environmental, climate, social and economic benefits to nations. It provides a structural framework aiming at increasing the value, use and life of materials, products and assets and designing out waste from production and consumption. The CE 3.0 seeks to identify ways to improve waste management, as well as the possibilities of achieving savings on the state budget through waste generation prevention, eco-design and product reuse. Effective collaboration among the central authorities, the recycling, collection, and sanitation industries, and waste generators is also an important element of CE 3.0 and will enable directives on packaging waste and the waste management system. Additionally, one of decisive elements of a more transformative view of circular economy is operationalization principle of R-hierarchies or imperatives. While the 3R-imperatives of 'reduce, reuse recycle' establish an acceptable notion of circular economy in theory and practice. There has recently been emphasis on more nuanced hierarchies with shorter loop options as enabling the highest possible value retention of resources over multiple product life cycles. The most common perspectives on R-imperatives were put into a single systemic typology of 9 resource value retention options as a number of Rs by designing life cycle in connection with the 9Rs concepts.

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A Road to Circular Economy: Mindful Consumption

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Abstract—

With higher level of the ecological crisis and the impacts of climate change becoming more and more visible every year, there is an urgent need to search for ways to render our society more sustainable. The purpose of this article is to study the influence of mindful consumption on the transition towards circular economy. Documentary study and literature review were used for data collection. The problems of irrational consumption were examined, circular economy principles were investigated, and explore how right mindfulness effects consumer's behaviors in the consumption process and how it influences the business sector towards circular economy. Results showed that right mindfulness, when applied to an individual's consumption behaviors, it can promote individuals' awareness of waste problems, resource depletion, pollution, environmental degradation and climate change when they make their decision on purchasing. Thus, their consumption process develops in more sustainable way which contributes to resources conservation and environmental sustainability. As a result, it will influence business sector to make a transition towards circular economy; reducing raw material extraction, designing and manufacturing more sustainable/eco-friendly products, and using more recycle materials. Circular economy concept is a great move towards environmental sustainability. Consumers play an important role in the economic system of a nation. If there is no consumers' effective demand, the producers would have no motivation to produce and sell to consumers. To move forwards on the path towards circular economy, consumers are required to make their choice with mindfulness.

Index Terms— Right Mindfulness, Irrational Consumption, Mindful Consumption, Circular Economy Concept

I. INTRODUCTION

Today's financial and environmental crisis is a sign which something is fundamentally wrong with our economic system. However, the global economic reforms we have seen in recent years whether they are conservative, leftist, or green have been unable to change the destructive course of our economy. Thus, a systematic change is urgently required. The power of the corporation needs to be transformed into the power of cooperation, and the decentralized power of economic democracy should be taking place. Since the economic and environmental problems are all interconnected, the main causes of the problems need to be analyzed to find comprehensive solution. The solution should offer a resilient and sustainable system which is truly revolutionary and establish a balanced economy while saving our rapidly deteriorating ecosystem. It needs to understand human nature including his/her behavior, motives, and meaning as the fundamental elements. Mindful consumption is the application of mindfulness when consumers make their choices. It is concerning their thought and behavior with caring for themselves, communities, and environment which is the goal of circular economy.

The global population will continue to grow, the middle class is set to top 5 billion by 2030, and almost 10 billion people will be living on Earth by 2050 [1]. The effects of excessive consumption are already seen. Economic losses related to extreme weather have increased by 86 % to $129 billion over the last 10 years, even basic resources like water are under threat [2]. By 2030, the global population is projected to need 40 % more water than the planet can sustainably supply. Alternatives, however, exist and we only need to look into nature to be inspired and consider the resilience to make the ecosystems better in which the seasons are perfectly harmonized with the lifecycle of all species.

II. IRRATIONAL CONSUMPTION

Consumption has been defined by many researchers from the field of consumption studies that it is a complex process

embedded in social, economic, cultural and material systems [3]. It is defined as a process in which consumers engage in possession and appreciation of goods, services, performances, information or ambience over which the consumer has some degree of discretion [4]. To provide a more inclusive definition that demonstrated the processes that objects exit people's lives, Evans [5] suggested three more steps including devaluation, divestment and disposal. Then, consumption consists of six phases. The first phase is acquisition, the process that consumers obtain the objects to be consumed. Second, the use stage which is about physical deterioration of products or embedding acquired objects in everyday life. Third, the appreciation stage occurs when people value such objects in their domestic environment. Devaluation happens when such objects lose their meaning and therefore importance for the consumer. Then, the acquired objects are divested of the consumer's domestic realm. This is the end of the use stage of consumption and moves to the disposal stage which could come in many forms, e.g. by keeping them in a storage room or throwing them in the waste bin.

Irrational consumption, decision making based on feelings rather fact, can be considered as one of the major causes of resource depletion, pollution, environmental degradation and climate change and as barriers for sustainable development. When buying things, most consumers make their decision by convenience packaging rather than eco-friendly ones. Many others prefer single use packaging and containers to reusable containers as they feel inconvenient to carry them. In 2008, our global plastic consumption worldwide has been estimated at 260 million tons, and, according to a 2019 ABC Science report by Nick Kilvert, "On average, we each use 53 kilograms of plastic a year and generate a collective total of more than 300 million tonnes of plastic waste. By 2030, this is predicted to double."

Food production and consumption have remarkable negative environmental effects, in particular food waste. Food waste occurs throughout the entire food system, but households make the largest contribution. This happens because lots of consumers make their food choices from its looks rather than its quality, and from its discount if buying two, or in bulk rather than buying in needed quantity. Such food choices cause food leftover all of which ends up as waste. Across global food systems, food loss and waste (FLW) is a global issue challenging the food security, food safety, the economy, and environmental sustainability. There is no accurate estimates of the level of FLW available, but studies indicate that it is about 30 percent of all food around the world [6]. This amounts to 1.3 billion tonnes per year. FLW indicates the wastage of resources, including the land, water, labor, and energy which are used to produce food [7].

Electrical and electronic products (E-products) have become one of the most focus areas that challenge the resource sustainability due to increasing demand, the use of important resource, and the challenges in E-waste management. E-waste amount is rapidly increasing around the world and it is expected to be double by 2045 [8]. E-waste is also a combination of valuable resources and toxic substances that requires careful management. E-products have evolved to become complex and found everywhere in everyday lives but e-waste collection and management systems have not caught up – mostly failing to ensure proper handling of e-waste. This can cause potentiality of resource losses and negative impacts on environment as well as human health [9].

Currently, lots of consumers frequently replace their functional electronic/electric equipment while it is still operational due to the updated features and designs. They possess extra equipment/gadgets more than what they really need. Many consumers do not think of the lifespan of the products before making decision while some never think of repairing their equipment. Such behaviors can be considered as irresponsible consumption which causes more and more waste in the e-waste stream. On average, the total weight (excluding photovoltaic panels) of global Electrical and Electronic Equipment (EEE) consumption increases annually by 2.5 million metric tons (Mt). In 2019, the world generated a striking 53.6 Mt of e-waste, an average of 7.3 kg per capita [10].

It is obvious that irrational consumption behaviors can be one of the major causes of the huge waste stream in our societies. On the contrary, responsible consumption, the consumption with awareness of waste problems, resource depletion, pollution, and environment degradation, in other words, the consumption with mindfulness can alleviate such problems and strengthen sustainability for our world. "Each and every one of us must do our part in creating a better world, for though the small choices we make each day – what we buy, what we eat, what we wear – may seem insignificant, the cumulative effect of billions of people making ethical choices, will start to heal the natural world", Dr. Jane Goodall.

III. MINDFUL CONSUMPTION

In Buddhism, there are many teachings regarding the middle way, the right amount, knowing moderation and all these terms may be considered as synonyms for the idea of balance or equilibrium [11]. The right amount in Buddhism also means not harming oneself and others. This important principle is the basic criterion of right action for all human activity not only in relation to consumption. It implies that

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'not harming others' can apply to human beings, to all that lives, and to all ecosystems [12].

From a Buddhist perspective, economic principles are related to the three interconnected aspects of human existence: human beings, nature (ecosystems), and society (with the meaning of the word nature used in the sense of ecosystems). Buddhist economics is the causal process of those three aspects in which they do not harm each other, but work together in a harmonious way and support each other. Economic activity takes place without causing harm or decreasing quality of life of oneself, but making it better. At the same time, it does not violate or damaging society and environment [13].

In Buddhism, right mindfulness is an individual's constant awareness of his body, feeling, and thoughts. It is one of the most important factors of the Noble Eightfold Path as it can direct one to choose the activities that lead to environmental conservation. When people do activities with the right mindfulness, which are simple and easy to adopt, it will lead to a comprehensive potential for environmental conservation. Transition to a process of transformation of current systems of unsustainable production and consumption to sustainable ones, one needs to be thoughtful about what one is buying and choosing a sustainable option wherever possible. Consumers can start with carrying a reusable bag, refusing single-use plastic containers and packages, and recycling plastic bottles.

Right consumption, consumption with right mindfulness, is a comprehensive term as it includes environmental-friendly processes; right extraction of natural resources, renewable and non-renewable; right manufacturing, right packaging, right transportation, right buying, right use, right waste management and recycle, reuse and reduce (as figure 1). It can promote environmental conservation and ultimately lead to sustainable development. This path also needs be strengthened by other Buddhist virtues like kindness, contentment, and non-attachment to make it more effective in achieving sustainable development.
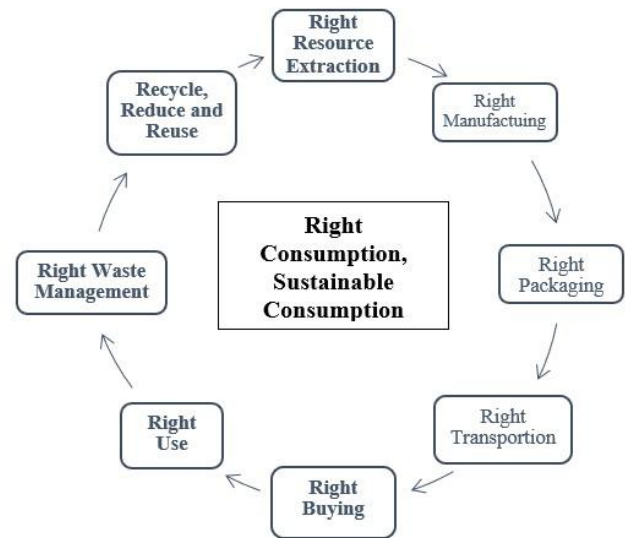
Figure 1. Aspects of Right Consumption/Sustainable Consumption

IV. BENEFIT OF CIRCULAR ECONOMY

To achieve circular economy, governments, local administrators, business sectors, manufacturers, and even consumers need to work together in the same direction in complementary patterns of production and consumption which, when combined, make sense and reinforce each other. The governments need to promote sustainable development and implementation by enforcing and monitoring responsible purchasing policies to ensure sustainable procurement. Manufactures and business sectors are required to reduce the environmental impacts of a product or service with their eco-friendly designs. They also need to search for eco-industrial synergies and collaborative economy in order to promote material efficiency and sell services related to products rather than the products themselves. Consumers also play an important role in making rational consumption choices based on social and ecological criteria and extending the duration of use through repair, reuse, repurpose, and recycle [14].

The main goals and advantages of a circular economy are concerning three dimensions: environment, economic and social. Circular economy can help protect the environment, reduce waste and the emissions of greenhouse gases, promote systematic recycling while reducing the dependence on importing raw materials, water, and energy. Circular economy also enhance the economic growth and promote the competitiveness of national companies. As a result, it creates more jobs and reduce unemployment rate and poverty as well as minimizes the social impacts of pollution and climate change.

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Achieving a sustainable circular economy, the consumption and production practices need to be changed. The practices involve redesigning the products to make them last longer and can be reused, repaired and remanufactured. This can save more energy and raw materials which are going to be used in producing new products while it can help retain the functional value of the existing products. The manufacturing and business sectors have to do more with less material and consumers need to cooperate with responsible consumption. Responsible consumption requires consumers to think carefully before making their purchase and replace the idea of purchasing with more repairing and restyling the things they have possessed. It can offer new business models for private sectors such as leasing and repairing. Thus, they will produce based on the actual demand. The new business models can create more jobs and encourage people in communities to participate in local activities and have stronger relationship [15].
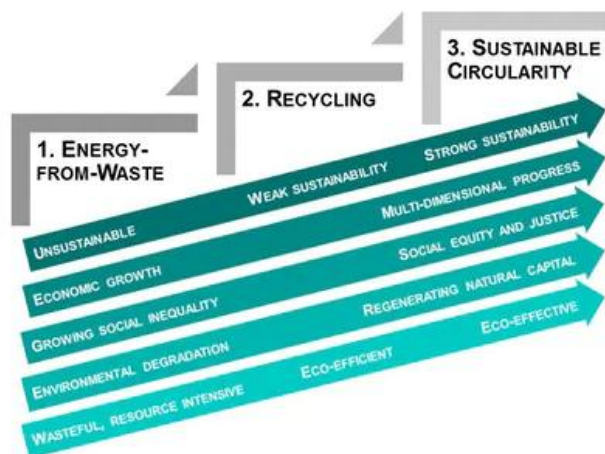
Figure 2. The Transition towards and increasingly sustainable circular economy radically changes the purpose of the economy [16]

Development in line with circular economy principles can prove for social, economic, and environmental benefits. According to Ellen MacArthur a circular economy trajectory of Chaina across five high-impact areas including the built environment, mobility, nutrition, textiles and electronics could probably save businesses and households approximately CNY 32 trillion (USD 5.1 trillion) in 2030 and CNY 70 trillion (USD 11.2 trillion) in 2040 in spending on high-quality products and services. to be beneficial for social economy, and it also has potential for large reductions in emissions of greenhouse gases (11 % by 2030, 23 % by 2040) and fine particulate matter (10 % by 2030, 50 % by 2040), and falls in traffic congestion (36 % by 2030, 47 % by 2040). Moreover, it can help the country reduce reliance on imported raw materials due to the lower consumption of

energy and materials and greater efficiency in the mobility system [17].

Circular economy concept has been adopted in some countries as Germany, Denmark, Netherlands, Scotland, Sweden, China, and Japan, however, the implementation can be varied. For example, the CE concept in China was implemented in three layers: micro, meso, and macro while it was implemented in form of legislation, policies, and regulations in Germany and Japan [18]. The CE concept is basically developed in four stages: design, production, consumption, and waste management. Although there are differences in the implementation approaches and procedures among the countries, every country moves towards the same goal to achieve sustainable development. To be successful in the implementation of circular economy, policies and regulations need to be effectively enforced, and collaboration and support from all stakeholders, especially consumers, are essential.

With its aim to eliminate waste and promote continual use of resources, circular economy concept is now becoming a new model of resilient and sustainable development for developed and developing countries. It can be a potential alternative to the traditional manufacturing-led economy, especially for developing countries because it provides new strategy for industrial development and more economic opportunities. However, the pathways to circular economy for developing countries need to be different from those applied in the developed countries because their political and economic conditions are different.

The circular economy model is based on minimizing the extraction of raw materials and replacing the linear economic model with resources conservation and no waste left behind. The use of renewable energy, reduced emissions, and greater industry efficiency are also inclusive in the CE model. It provides us the best chance to live within the bounds of the Earth's capacity. The benefits of CE include less dependence on important raw materials, avoidance of environmental damage caused by resource extraction, less pollution, and more green industries and job opportunities [19].

The change to circular economy can be defined as the change in an economic system which requires practical concepts of reducing, reusing, recycling, and recovering materials to replace the traditional end-of-life concept within the 9R frameworks [20]. (figure 3) It can be operated in all sections of the economic system including consumption, production, business, government and administration at domestic, regional, national, and international levels. With its aim to achieve sustainable development, circular economy can bring about higher environmental quality, economic and social wellbeing for current and future generations.
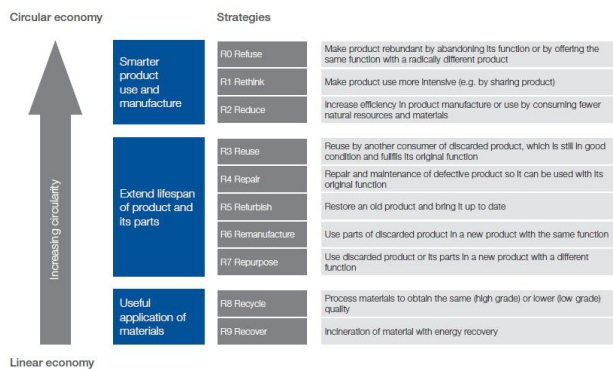
Figure 3. The 9R framework [21]

V. HOW MINDFUL CONSUMPTION CONTRIBUTES TO CIRCULAR ECONOMY

As mentioned earlier, Responsible Consumption is an important activity encompassed in circular economy. Responsible consumption is a way of consumption that takes into account the foundations of sustainable development. According to UNEP, sustainable consumption is the use of services and related products responding to basic needs and making quality of life better while reducing the use of natural resources and toxic materials as well as the emission of waste and pollutants over the life cycle of the service [22]." Similarly, consumption according to Buddhist perspectives, mindful consumption, is the consumption in such a way of not causing a decline in the quality of one's life, not bringing distress to society and not causing degeneration in the quality of ecosystems.

Clair Brown, an economics professor at U.C. Berkeley, suggests the economic paradigm for sustainable world should highlight the interdependence, shared prosperity, and happiness rather than mainly focus on national income. Buddhist economics is based on the awareness of how our actions impact on others, society, and environment. It guides us to recognize that our lives and living are relating to others, our communities, and nature. Therefore, we can make our lives better and happier as well as promote wellbeing for future generations and for our world if we do more valuable activities instead of continuing our endless desire [23].

Buddhism offers a rational guidance to manage the conflicts between the consumerism economic system and the changes required for achieving environmental sustainability. The logic principles of Buddhism's Four Noble Truths, and the right mindfulness in the Eightfold Path can be applied with the knowledge and experience available in the present economics and environmental science as a practical framework for the successful transformation to sustainable economies. The Buddhist view of the nature of reality and path to well-being share much in common with social and intellectual development for sustainability. They can

reinforce each other in the process of reducing society's metabolism and nature intervention levels, and at the same time promoting the intrinsic interconnectedness of human existence and interaction with the broader social and natural worlds [24].

Changing to mindful consumption, one needs to incorporate various changes in one's lifestyles on the basis of right understanding, which is the key principle of the Buddhist Noble Eightfold Path. To understand rightly means to understand things as they really are and not as they appear to be. A minimum degree of right understanding is necessary at the very beginning because it gives the right motivation to the other seven factors of the path and gives them the correct direction to live their lives in harmonize with the society and nature/ecosystem. No matter how well the policies and plans to circular economy are written, sustainability cannot be achieved unless consumers, the key element of the economic growth, make their choice of consumption with mindfulness. Only a mindful consumer may not be able to contribute much to circular economy, but the cumulative effect of billions of mindful consumers can make a big contribution, and the business sector will have to change their productions and services in responsive actions. (Figure 4)

Figure 4. Contribution of Mindful Consumption to Circular Economy

CONCLUSION

Every resource we use in these days can cause a reduction of resource for future generations. If the current rate of consumption continues, the natural resource extraction will become double in the near future. The challenge of sustainability requires both technology and the self-restricting of our needs that balances spiritual and material values and respects the human condition of future generations. Our world resources today are perceived and managed with an expectation of high return on investment and not treated as vulnerable common goods. Critical resources such as clean air and water require urgent action to conserve them. We will never be successful in managing such critical resources if people don't change their

perspective towards the natural resources. Circular economy concept is an economic system in which resource efficiency is focused and no materials are wasted. Products are designed to maintain their function and value which allows them to be reused, recovered, and refurbished in order to extend their lifespan as well as to reduce resource extraction. The circular economy can stimulate the growth trend in recycling markets and reduce demand for primary resources, but it requires an adjustment in employment, logistics and fiscal structures in countries which are dependent on the extraction of natural resources. Circular economy can also open more opportunities for commodities and manufacturing sectors in recycling, repurposing, and reuse of the materials. It can increase overall wealth in societies, promote public wellbeing, and promote social and environmental sustainability at the same time. Ensuring sustainable consumption and production patterns has become an explicit goal of the Sustainable Development Goal (goal number 12), with the specific target of achieving sustainable management and efficient use of natural resources by 2030.

To achieve the transition to circular economy, mindful consumption to solve the causes of wrong consumption will give an insight into the problem its consequences and will lead to the path for environmental conservation and sustainable development. Circular economy skills and knowledge are needed in different areas of public administration, industrial and business activities, and in consumption process. Therefore, education is an essential tool in providing knowledge and building understanding for the public and all stakeholders. On the way towards a circular economy, we will constantly face greater challenges that education will have to address. Lifelong learning should support the goal of making us all circular economy professionals.

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The Acceptance of Online English Language Learning of Undergraduate Students at Rajamangala University of Technology Thanyaburi

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Abstract— The purposes of this study were 1) to study the levels of the acceptance of online English language learning, 2) to study the factors affecting the acceptance of online English language learning, and 3) to study the undergraduate students' satisfaction towards studying English courses with online mode during summer semester in academic year 2019 at Rajamangala University of Technology Thanyaburi, Thailand. This research was employed by the Technology Acceptance Model (TAM) and conducted as a quantitative and qualitative research. The 400 samples were selected by simple random sampling, and the 30 key informants were chosen by purposive sampling. The statistics used for data analysis were percentage, mean, standard deviation, t-test, f-test, correlation, and multiple regression. Findings of the research indicated that the acceptance and the satisfaction of online English language learning were not affected by the individual differences. The acceptance of online English language learning was at high level ($\overline{X}$=3.9): Perceived Usefulness ($\overline{X}$=3.96), Perceived Ease of Use ($\overline{X}$=3.94), Attitude ($\overline{X}$=3.79), and Intention ($\overline{X}$=3.7) which was affected by learners ($\overline{X}$=4.17), teachers ($\overline{X}$=4.14), learning activities ($\overline{X}$=4.14), measurement and assessment ($\overline{X}$=4.08), and technology ($\overline{X}$=3.96) at high level ($\overline{X}$=4.11). The overall satisfaction of the students towards online English learning was also at high level ($\overline{X}$=3.97): knowledge and skills of the teachers ($\overline{X}$=4.09), the clear and consistent measurement and assessment ($\overline{X}$=4.07), and learning feedback ($\overline{X}$=4.05). The key factor of learning management affecting the acceptance of online English language learning was the measurement and assessment (β= .461) at .05 statistically significant level. The greatest factor affecting the acceptance of online English learning was Perceived Ease of Use (β= .856) at .05 statistically significant level. The students suggested that the teachers should have teaching techniques to stimulate students' interests and provide a variety of activities, such as VDO recording, asking and answering question activities, and group presentation, whereas the students should pay more attention than studying in classroom and have information technology skills. The major online learning constraint was the stability of internet signal. Moreover, the students preferred studying in classroom. If the university continues online English learning, the learning management should be explained in details including with providing facilitators of learning and lower tuition fees.

Index Terms— *Technology Acceptance Model (TAM), Online English Language Learning, English Language Teaching*

I. INTRODUCTION

The digital transformation is dominating a wide range of economies. If any companies adapt their business to technology, the companies are more competitive. Then they can increase their revenue and customers' satisfaction. This brought Thailand into Thailand 4.0. According to [1] , Thailand 4.0 emphasizes the innovative driven economy. The digital transformation not only affects economies, but also education. Currently, there are many emerging innovations supporting the ubiquitous learning. the learners can use the computer or mobile technology to study anywhere and anytime. This is accelerated by COVID-19 pandemic because it suddenly shifts the traditional education to online education. Every university suspended studying in the classroom so as to slow the spread of COVID-19. This affected the universities had to provide the infrastructure and knowledge for the online learning management, and this also affected the teachers to change their teaching into technology-based teaching, but the teachers could be supported by the universities. The students seemed to be most affected because the students' learning was immediately shifted to online learning mode and depended on the technologies. Some learners might go well with the new way of learning and technology, but some might have to struggle with it. The learning performance will be high when

the learners are willing to use the technology as [2] [3] mentioned that performance gains are often obstructed by users' unwillingness to accept and use available systems. So as an educator, we need to investigate the technology acceptance of our students to improve our teaching in terms of teaching strategies and learning management to support our students' learning. Teaching English language was challenged in this context as [4] mentioned that low English proficiency students with no skills in online learning and no experiences in self-directed learning might not be ready for online English language learning. However, it was compulsory to teach English language online and to get more understanding of this context this research would be employed by the technology acceptance model (TAM) [5] to identify the levels and factors of the students' acceptance of online English language learning. The results could be used for online English language development in the future.

II. RESEARCH OBJECTIVES

The objectives of this research were 1) to study the level of the acceptance of online English language learning, 2) to study the factors affecting the acceptance of online English language learning, and 3) to study the undergraduate students' satisfaction towards studying English courses with online mode during summer semester in academic year 2019 at Rajamangala University of Technology Thanyaburi, Thailand.

III. RESEARCH METHODS

A. Research Design

This research was conducted by using mixed methods. For quantitative data, a questionnaire was employed by the Technology Acceptance Model (TAM) with Likert's 5 rating scales to measure the levels of the students' acceptance and satisfaction toward studying English courses with online learning mode. The questionnaire covered the factors affecting the online English language learning (teachers, learners, online learning activities, teaching technology, learning measurement and assessment), the Technology Acceptance Model (TAM): Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Attitude toward Using (ATU), and Intention to Use (ITU); and the students' satisfaction toward online English language learning. The questionnaire was distributed online to 400 students selected by simple random sampling. The data was analyzed by using frequency, percentage, mean, standard deviation, f-test, Pearson product-moment correlation coefficient, and multiple regression with enter method. Whereas, the qualitative data was collected and summarized from interviewing the 30 students chosen by purposive sampling. The semi-structured interviews were done via Line application (a communication mobile application with free calls and messages) and on the phone. The interview data were analyzed by content analysis.

B. Research Process

The research process was divided into 5 steps: identify the problems and review the related theories and researches, develop the research instruments, apply for human ethics approval, collect the data, and analyze the data and report the findings. The steps were shown as Fig. 1.
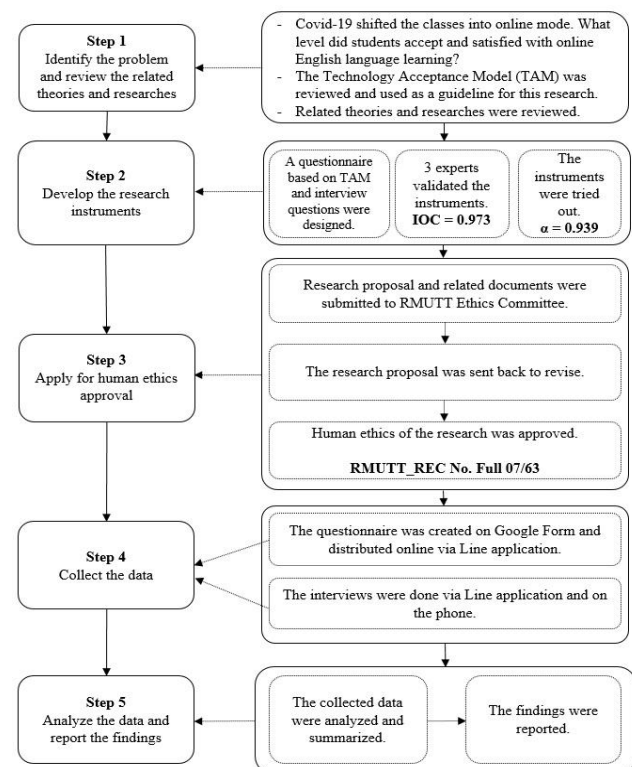
Fig.1 Research process

IV. RESULTS

The research was conducted under Covid-19 pandemic during summer semester in academic year 2019 that every class turned to online mode, so the questionnaire was distributed online with kindly assistance of English language lecturers. The demographic information and learning settings of the 400 respondents were summarized as shown in Table 1 and Table 2.

Table 1 The demographic information and learning settings of respondents

Demographic information		n	%
Genders			
Male		248	62.00
Female		152	38.00
	Total	400	100.00
Students' years			
1st year		78	19.50
2nd year		232	58.00
3rd year		54	13.50
4th year		36	9.00
	Total	400	100.00
Students' faculties			
Faculty of Engineering		329	82.25
Faculty of Business Administration		8	2.00
Faculty of Home Economics Technology		3	0.75
Faculty of Fine and Applied Arts		9	2.25
Faculty of Technical Education		13	3.25
Faculty of Science and Technology		4	1.00
Faculty of Mass Communication Technology		7	1.75
Faculty of Liberal Arts		27	6.75
	Total	400	100.00
Subjects			
English for Communication 1		41	10.25
English for Communication 2		45	11.25
English Conversation		162	40.50
English Reading		21	5.25
English for Presentations		131	32.75
	Total	400	100.00

Learning settings		n	%
Networking			
Wi-Fi		182	45.50
Mobile network		190	47.50
LAN		28	7.00
	Total	400	100.00
Equipment for online learning			
Computer		203	50.75
Mobile phone		172	43.00
Tablet		25	6.25
	Total	400	100.00
Programs / software for online learning*			
Microsoft Teams		273	68.25
D-Learn (Moodle)		136	34.00
Google Classroom		122	30.50
Line		142	35.50
Zoom		169	42.25
Facebook		44	11.00
YouTube		15	3.75
Others		2	0.50

* check all that apply

The research results of online learning management showed that the learning management factors affected online English language learning at a high level. Table 3 showed that the students were the most influential factor followed by instructors, online learning activities, measurement and assessment, and teaching technologies. To clarify this point, each factor was shown in the following tables.

Table 1 above shows that most students were male (62%), and most students were studying in the 2nd year (58%) from the Faculty of Engineering (82.25%). Whereas the English language subject most students enrolled was English Conversation (40.50%). Regarding the learning settings, most students studied online English language courses by connecting to the internet via mobile network (47.50%). Computers (50.75%) were the equipment for online learning most students used for their studies, and the software that most students used for online learning was Microsoft Teams (68.25%) as shown in Table 2.

Table 2 The students' learning settings

Table 3 The learning management factors affecting online English language learning

The learning management factors affecting online English language learning	$\bar{X}$	Acceptance		Ranking
		S.D.	Levels	
Teachers	4.14	0.72	High	2
Learners	4.17	0.62	High	1
Online learning activities	4.14	0.74	High	3
Teaching technologies	3.96	0.78	High	5
Measurement and assessment	4.08	0.74	High	4
Total	**4.11**	**0.64**	**High**	

Regarding the acceptance of online English language learning, the overall acceptance was at a high level. Considering each aspect in descending order, the students accepted online English language learning at a high level in every aspect as shown in Table 4: Perceived Usefulness, Perceived Ease of Use, Attitude, and Intention.

Table 4 The acceptance of online English language learning

The acceptance of online English language learning	Acceptance			
	$\overline{X}$	S.D.	Levels	Ranking
Perceived Usefulness	3.96	0.84	High	1
Perceived Ease of Use	3.94	0.84	High	2
Attitude to Use	3.79	0.96	High	3
Intention to Use	3.70	1.07	High	4
Total	**3.88**	**0.85**	**High**	

The research results in terms of the students' satisfaction indicated that overall satisfaction was at a high level ($\overline{X}$=3.97, S.D.=0.80). The online lecturers' knowledge and teaching skills were the most satisfying at a high level ($\overline{X}$=4.09, S.D.=0.92) following by clarity and fairness in measurement and assessment ($\overline{X}$=4.07, S.D.=0.88), and providing student feedback for self-development ($\overline{X}$=4.05, S.D.=0.86).

The research hypothesis testing could be divided into 3 parts: H1: Differences of demographic information and learning settings affected the differences of the acceptance and satisfaction toward online English language, H2: Online English language course management influenced the acceptance of online English language courses, and H3: The relationship of factors influencing the acceptance of online English language.

1. H1: Differences of demographic information and learning settings affected the differences of the acceptance and satisfaction toward online English language. According to the hypothesis testing by using f-test with LSD method, the collected data about the acceptance and satisfaction toward online English learning were compared with genders, internet connection, and equipment for online learning, the results showed that there were no statistically significant differences between demographic information and learning settings and the acceptance and satisfaction toward online English learning at the level of .05.

2. H2: Online English language learning management influenced the acceptance of online English language learning. First of all, the collected data were measured for the strength of a linear association by using the Pearson product-moment correlation coefficient. The results shown in Table 5 confirmed the hypothesis that every variable of online English language learning management was positively related at the statistical significant level of .05,

namely, the lectures related to the acceptance of online English language learning at a moderate level (r=.650), the students related to the acceptance of online English language learning at a moderate level (r=.613), the online learning activities related to the acceptance of online English language learning at a high level (r=.701), and the online teaching and learning technologies related to the acceptance of online English language learning at a high level (r=.775).

Table 5 Online English language learning management influencing the acceptance of online English language learning

Variables	LEC	STU	ACT	TEC	EVA	ACC
Teachers (LEC)	1					
Learners (STU)	.642**	1				
Online learning activities (ACT)	.844**	.697**	1			
Teaching technologies (TEC)	.699**	.642**	.788**	1		
Measurement and assessment (EVA)	.723**	.639**	.838**	.780**	1	
Acceptance (ACC)	.650**	.613**	.701**	.775**	.781**	1

**p < .05

Then the data were analyzed by multiple regression with the enter method, and it found that the lecturers, the students, the online learning activities, the online teaching and learning technologies, and the measurement and assessment influenced the acceptance of online English language learning at the statistical significant level of .05. In addition, the most influential factor was the measurement and assessment (β=.461). The five predictors were able to account for 69% of the variance in the acceptance of online English language learning, as also noted in Table 6.

Table 6 The results of analyzing the factors of online English language learning management influencing the acceptance of online English language learning with multiple regression with the enter method

Online English language learning management	The acceptance of online English language				
	B	S.E.	ß	t	p
(Constant)	-.367	.169		-2.179	.030*
Teachers	.127	.062	.108	2.033	.043*
Learners	.148	.055	.109	2.688	.008*
Online learning activities	-.197	.081	-.171	-2.441	.015*
Teaching technologies	.442	.054	.405	8.167	.000*
Measurement and assessment	.531	.063	.461	8.368	.000*

R = .831 R^2 = .690, Std. Error of the Estimate = .476 F = 175.725, p = .000

3. H3: The relationship of factors influencing the acceptance of online English language as shown in Table 7 were analyzed by using the Pearson product-moment correlation coefficient, and it confirmed the hypothesis that factors of the acceptance and satisfaction toward online English language learning were positively related at the statistical significant level of .05.

Table 7 The relationship of factors influencing the acceptance of online English language

Variables	PU	PEOU	ATU	ITU	SA
Perceived Usefulness (PU)	1				
Perceived Ease of Use (PEOU)	.856**	1			
Attitude to Use (ATU)	.861**	.835**	1		
Intention to (ITU)	.826**	.793**	.893**	1	
Satisfaction (SA)	.815**	.824**	.798**	.805**	1

**p < .05

However, when the collected data were analyzed by multiple regression with the enter method, it found that the factors influencing the intention in online English language learning were perceived usefulness, attitude, and satisfaction; whereas, perceived ease of use did not influence the intention in online English language learning. The results revealed as shown in Fig 1.
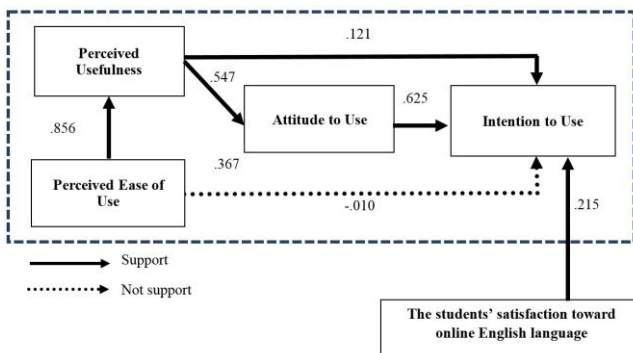
Fig 1 The results of analyzing the factors influencing the intention in online English language learning with multiple regression with the enter method

According to problems and recommendations at the end of the questionnaire, there were 90 respondents giving the information about their problems about online English language learning. The results showed that the most difficult problem during learning English language online was network signal stability (75.55%), followed by unreadiness of the equipment for online learning (60%), such as a computer, a webcam, and a microphone. Some students (25.55%) said that they lacked a computer or a computer notebook, just only a mobile phone for online learning. In addition, the students (14.44%) said that the communication problems caused the difficulties to understand. Furthermore, there were 38 students providing some recommendations on online English language learning that they would like to study in the classroom because of more effective learning (100%), and some students (18.42%) said that the lecturers should give clearer explanations when teaching and when giving assignments.

Regarding the results from the interview, there were 30 key informants: 60% was male and 40% was female. The interview was semi-structured and divided into 7 main questions to ask about the factors in the online English language learning: the online lecturers, effective online English learning styles, the online English language learning skills, the online English learning activities, the online English language instructional media, the appropriate online English language measurement and assessment, and the online English language learning constraints and recommendations.

For the online English language lecturers, most students thought that the lecturers should be punctual, professional, patient, flexible, caring and willing to give the students advice. The lecturers should understand the students' limitation of online learning. The lectures should have a sense of humor, build up a relaxed classroom atmosphere and fun online classroom, and make the lessons easy to understand. The lecturers should have some knowledge about technology and use various kinds of technology to make the lessons more interesting. The lecturers should also ask the students some questions while teaching and allow the students to express their opinions. However, some students also thought the lecturers should concisely teach, otherwise the students could not understand because of many distractions.

The students gave some opinions on how to learn English language online effectively. Online English language learning should be paid more attention than learning in a normal classroom. The students should be punctual, have self-discipline, and study in a good

environment promoting online learning, such as a quiet place. Also, the students should ensure the availability of online learning equipment, study before class, take notes when studying, and self-study after class. If it is possible, the lessons should be recorded in order to study repeatedly. And if the students don't understand what they have already learned, they should ask the lecturers immediately after class. Furthermore, some students told about their learning techniques that they used 2 devices at the same time: one for online learning and another one for finding the vocabulary.

For the online English language learning skills, the students said that online learners should have ICT skills in order to easily access the online classroom, lessons, and materials and for self-study. The online learners should have listening skills, also communication skills, for practicing English language with the lecturers. In addition, the online learners should have problem solving skills because they have to study alone.

The online English language learning activities the students suggested are making video clips, frequently or randomly asking the questions, group works, presentation, conversation in pairs, doing some exercises in class, writing a dialogue then making a conversation face to face via webcam, expressing opinions or class discussion individually, in pairs, or in groups, and providing videos for learning out of class.

The online English language instructional media that the students thought that they can be used in the online classroom are pictures, videos, Kahoot, and English practice applications.

For the appropriate online English language measurement and assessment, the students said that there should be objective and subjective tests, listening and speaking testing by real time testing or recording video clips, presentation, unit tests, as well as tests in pairs or groups.

However, the students mentioned their online English language learning constraints. The problems could be categorized into 3 groups: technology and communication constraints, online learning constraints, and online learning environment constraints. First of all, most students agreed that the stability of mobile networks caused incontinuity of learning, unsmooth listening, unclear pictures, especially when raining. The slides were small when studying via mobile phones; moreover, some students said that staring at the screen too long caused their eye pain. Some also mentioned the unreadiness of the online learning equipment: lack of computers and printers, old mobile phones causing out of date applications including not topping up the internet. While the online learning

constraints varied among the students, some students studied under pressure because they did not know the answers, took time for translation, found the difficult vocabulary, and they were shy to answer the questions in class with many people or with students from other faculties as well as they were shy to ask the questions and shy to turn on the camera. When the students asked the lecturers in person, the answers were delayed. The students could not get the answers immediately. The sound was unclear, and sometimes there was no sound. And the test time was quite limited, so they could not finish the test in time. For the online learning environment, the students could not concentrate with the lessons because the atmosphere at home or dormitories did not facilitate study. There was a lot of noise during studying from the lecturers and classmates because some students turned on the microphones all the time.

The recommendations from the students noted that they preferred studying in a normal classroom because they got more understanding. However, some students thought that online learning was beneficial. For example, they had more time to do something else. There was nobody interrupting while studying. They could get up any time and eat snacks while studying. Also, it was easier and convenient to contact the lecturers. There should be ready for online English learning, such as learners, lecturers, activities, technology, and measurement and assessment. The university should explain the online learning management in details including providing facilitators of online learning and lowering tuition fees.

V. DISCUSSIONS

The research results showed that the students accepted the online English language learning at a high level. Regarding each factors behind the online English language learning. Firstly, genders had no statistically significant differences of the acceptance and satisfaction toward online English language. This might because both male and female students had no significant differences found in barriers and needs in online learning [7]. The learning setting for the online English language learning pointed that the most of students accessed the internet via mobile network. This is because the mobile phones are a device most people have, so there is no need to buy any equipment for online learning. The research of [8] noted that the important factor for blended learning was inexpensive access to the online learning materials and the use of internet. Moreover, the COVID-19 pandemic led to the universities suspending learning in classroom, then no one prepared for this situation as well as the students. Using

mobile network for online learning was the best and fastest way to proceed their learning to the end of semester.

Although the mobile phones were used to access the internet, mobile phones were not the learning equipment most students used for their online learning. The result was discovered that most students used the computers instead. [9] mentioned that the mobile phones had small screen sizes and keyboard and the battery and memory were quite limited. So these limitation might cause the students using the computers more than mobile phones in online English language learning. This is supported by the students' interviews that slides on the mobile phones were too small and staring at the phones for a long time caused them eye pains.

About the programs used for online learning, most students said that the programs they used to learn online was Microsoft Teams. This may be because Microsoft Teams was provided by the university, so there were technical supports that teachers and students could ask for some assistance related to [10] that technical support could help the users of the particular program feel comfortable to use the program in terms of perceived usefulness and perceived ease of use. Also the results of [11] indicated that the technical support was related to attitude and technology usage.

Regarding the factors of online English language learning management, the results from the study about online learning management for English language courses showed that the students were the most influential factor that was consistent with [12] said that implementing the new technology needed to be accepted by the users otherwise it wasted time and money.

About the acceptance of online English language learning, perceived of usefulness was the most influential factor because when the students perceived usefulness of the new technology they were likely to intend to use and adopt it [5][13]. And when each factor of the acceptance employed by TAM was analyzed by multiple regression to study the influential factors affecting intention to use the technology for online English language learning. The results were consistent with the previous researches. However, there was no statistically significant difference between perceived ease of use and intention to use. As [14] said earlier, the experienced and inexperienced users would differently related to perceived of use and perceived usefulness: the experienced would focus on the usefulness, but the inexperienced would focus on perceived ease of use. According to the table 4, perceived usefulness was the highest and there was no relationship between perceived ease of use and intention to use, so it could be interpreted that most students responding to the questionnaire in this research were the experienced users. And it is supported by the students' interview that they were not confused if the teachers used many different programs for online English language learning.

VI. RECOMMENDATIONS

A. Recommendations for Practices

1. Based on students' recommendations, the teachers should develop teaching online skills trying to find the way to build the good atmosphere and encourage the students to learn online, such as, having a sense of humors, studying the new technology to make the lessons more interesting. However, the teacher should not distract the students too much. Moreover, the teacher should give the students a variety of task tests.

2. The recommendations for the new online learners were paying more attention than studying in classroom. Self-directed skills are required because they have to study alone. For low English language proficiency, using two devices might be beneficial for online learning support, for example 1 for online English language classroom and another one for research during class.

3. For online English language learning, ICT is one of the important skills.

4. The online English language learning should be tested by both objective and subjective tests, online face-to-face, groups and pair work.

5. According to the students' interview about the learning constraints, the bad weather is the big problems, so the students should find a backup plan, for example, using LAN instead of mobile networks or Wi-Fi, or asking the teacher to record videos.

B. Recommendations for Further Research

1. The next research might be involved with the activities used for online English language learning.

2. This research collected the data with the students who studied English language, so the research might apply the other subjects or faculties.

3. The further research might be conducted with other stakeholders to study the influential factors and their relationship.

4. The further research might be concerned with learning English language online for the disabilities.

5. Teaching English language online during COVID-19 situation is challenging because English language is a skill need to practice individually, so the next research might propose the online English language activities.

CONCLUSION

In conclusion, the research results obviously showed that RMUTT could deal with the COVID-19 situation affecting teaching and learning because the students' satisfaction towards online English language learning was high level. As online English language teaching is different from the traditional teaching, the teachers need to be supported and trained to be familiar with the new technology for online teaching in order that the teachers create the proper instructional media with online courses. Furthermore, it is quite important to follow up the students' online learning because the students were the key of online learning management. If the students refuse the new technology, then they would not intend to use it. So the online learning management would not be successful in terms of academics and educational investment.

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Entrepreneurs' Attitude toward English Proficiency of Interns of Rajamangala University of Technology Thanyaburi

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Abstract— This research was funded by Faculty of Liberal Arts, Rajamangala University of Technology Thanyaburi (RMUTT). The purposes of this research were to 1) determine entrepreneurs' attitude toward English proficiency of RMUTT interns in the second semester in academic year 2016, and 2) to study the entrepreneurs' opinions for improving the content of English language courses. The 400 entrepreneurs participating RMUTT internship were selected by multi-stage sampling. The research instrument was a questionnaire (α = 0.94). The statistics used for data analysis were frequency, percentage, mean, standard deviation, and f-test. Findings of the research revealed that the organizations moderately used English language in workplace and using English in a workplace had no significant difference among types of the organizations. Most organizations did not require English language on recruitment process. According to the entrepreneurs' opinions, all English skills of RMUTT interns were at a moderate level. The highest of each skill was listening to the supervisors' instructions with technical terms, speaking English for everyday use, reading emails or business letters, and filling in forms. The entrepreneurs recommended writing email correspondence, filling in forms, and note-taking in English. Speaking with confidence was also suggested as well as more listening and reading practice.

Index Terms— Attitude, English Proficiency, Interns, Higher Education

I. INTRODUCTION

In the 21st century, the world is fast changing with technological development affecting our livelihood. Many industries tend to reduce the production costs by using advanced technology instead of the workforce. Thailand 4.0 is an economic model in order to create a value-based economy that is driven by innovation, technology and creativity [1], so many companies tend to recruit high performing employees with multitasking skills. Therefore new graduates need to be trained to meet the needs of the employers. Beyond the professional skills, English language is an important skill as a medium for communication in the challenging world, especially for new graduates. The new graduates have to improve their English language with the main four skills: listening, reading, speaking, and writing for earning their living in the future. [2] noted the unskilled workers are less likely to have a chance of getting a job. Rajamangala University of Technology Thanyaburi (RMUTT) has been highly recognized as an educational institution having a commitment on producing "hands-on graduates" to serve the society [3]. RMUTT has continuously improved the students' English language competency with effective policies, for example,

internship abroad programs, international training courses, English language learning software, etc. However, the English language development of the students will be more effective when it meets the needs of the entrepreneurs. As an educational institution, RMUTT has to plan the new strategies for the English language development to support both the entrepreneurs who recruit the RMUTT graduates and the changing world. So, this is the right time to discover where the RMUTT students are placed in the entrepreneurs' points of view in order to guide the students in a particular way, and also get insight of the current trends of skills needed in each organization and of what the entrepreneurs need right now.

II. RESEARCH OBJECTIVES

This research aimed to 1) determine the entrepreneurs' attitude toward English proficiency of the RMUTT interns, and 2) study the entrepreneurs' opinions for improving the content of English language courses.

III. RESEARCH METHODS

A. Research Design

This research was a quantitative research. The samples were 400 entrepreneurs participating in the RMUTT internship in the academic year 2016 that were selected by multi-stage sampling. The research instrument was a questionnaire divided into 3 parts: the general information of respondents, the attitude of the respondents toward the English proficiency of the RMUTT interns, and the entrepreneurs' recommendations. There were 6 scales in the questionnaire; scale 5 was the interns' English skill performance was at the very good level whereas scale 1 was the interns' English skill performance should be improved, including with scale 0 was no English language skills in the workplace. The questionnaire was validated by 3 experts and its alpha coefficient was 0.94. The statistics used for data analysis were frequency, percentage, mean, standard deviation, and the one-way ANOVA F-test with Fisher's least significant difference (LSD). Beyond the determination of entrepreneurs' attitude toward the English proficiency of the RMUTT interns to identify how well the RMUTT interns use English language in the workplace, this research also tried to discover the importance of English in the workplace, and what kinds of English skills the entrepreneurs needed in the new era of disruptive technology.

B. Research Process

Research process of this research was separated into 7 steps, namely, propose the research proposal, review related theories and researches, gather the information of entrepreneurs, create and validate the questionnaire, collect the data, analyze the data, and discuss the results. Steps were shown in Fig. 1.
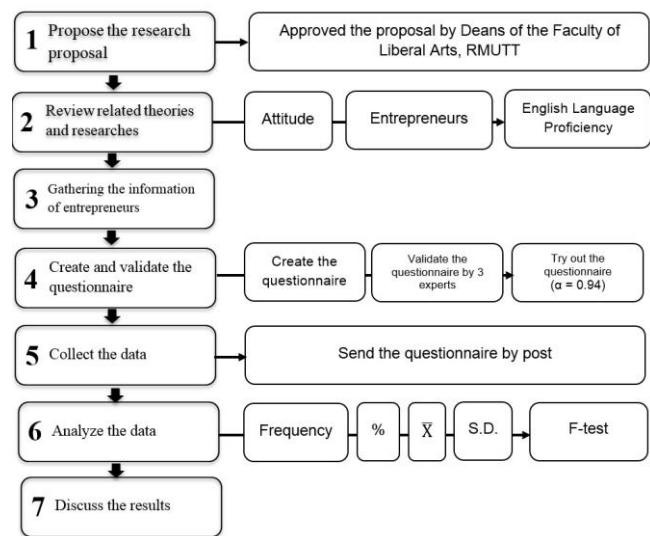
Fig.1 Research process

IV. RESULTS

The research results showed that 400 respondents were the internship advisors: 58.75% worked in the private sector, 22.25% worked in the public sector, 16.00% worked in the state enterprises, and 12% worked in the nonprofit organizations. The RMUTT interns assessed by the respondents were from 9 faculties: 26.25% from Faculty of Engineering, 25.25% from Faculty of Business Administration, 14.50 from Faculty of Science and Technology, 8.00% from Faculty of Mass Communication Technology, 7.75% from Faculty of Liberal Arts, 7.50% from Faculty of Technical Education, 4.00% from Thai Medical College, 3.50% from Faculty of Agriculture Engineering, and 3.25% from Faculty of Fine and Applied Arts. The respondents were asked about using the English standardized tests for recruiting the new employees, and the results showed that there were TOEIC (4.50%), TOEFL (0.75%), IELTS (0.75%), others (5.75%), and no English score used for recruiting (88.25%).

The entrepreneurs' attitude toward overall English proficiency of the RMUTT interns was at the moderate level ($\overline{X}$ = 3.06, S.D. = 0.72). The reading skills were the highest ($\overline{X}$ = 3.13, S.D. =0.73) following by the listening skills ($\overline{X}$ =3.08, S.D.= 0.77), the speaking skills ($\overline{X}$ =3.02, S.D.= 0.64), and the writing skills ($\overline{X}$ =3.00, S.D.=0.72) as shown in Table 1.

Table 1 The attitude of entrepreneurs toward RMUTT interns' English proficiency

English Proficiency	Attitude			
	$\overline{X}$	S.D.	Levels	Ranking
1. Listening	3.08	0.77	Moderate	2
2. Speaking	3.02	0.64	Moderate	3
3. Reading	3.13	0.73	Moderate	1
4. Writing	3.00	0.72	Moderate	4
Total	3.06	0.72	Moderate	

The research results for listening skills as shown in Table 2 indicated that all listening skills of the RMUTT interns were at a moderate level. The listening skill the most highly used in the workplace was listening to the supervisor's instructions with technical terms (n= 305), and the entrepreneurs' attitude toward this skill of the RMUTT interns was also the best skill among all listening skills ($\overline{X}$ =3.24, S.D. = 0.70).

Table 2 The entrepreneurs' attitude toward listening skills of the RMUTT interns

Listening skills	n	$\overline{X}$	Attitude		
			S.D.	Levels	Ranking
1. Listening to the customers' needs	286	3.15	0.71	Moderate	2
2. Listening on the phone	273	3.06	0.71	Moderate	3
3. Listening for note taking and fill forms	284	3.04	0.71	Moderate	5
4. Listening to the supervisor's instructions with technical terms	305	3.24	0.70	Moderate	1
5. Listening to the meeting	291	2.99	0.66	Moderate	7
6. Listening to the foreign colleague conversation	266	3.00	0.76	Moderate	6
7. Listening to media: radio, TV, etc.	276	3.05	0.74	Moderate	4
Total		3.08	0.71	Moderate	

Note: n = a number of the entrepreneurs that used each skill

Regarding the speaking skills, the entrepreneurs' attitude toward the speaking skills of the RMUTT interns was at a moderate level. The results showed that speaking in everyday life, such as greeting, welcoming, complementing, apologizing to customers, and saying goodbye to customers was the most highly used in the workplace (n=283), and this skill of the RMUTT interns was the best skill among all speaking skills ($\overline{X}$ =3.14, S.D.= 0.67) as shown in Table 3.

Table 3 The entrepreneurs' attitude toward speaking skills of the RMUTT interns

Speaking skills	n	$\overline{X}$	Attitude		
			SD.	Levels	Ranking
1. Speaking in everyday life, such as greeting, welcoming, complementing, apologizing to customers, and saying goodbye to customers.	283	3.14	0.67	Moderate	1
2. Making a conversation on the phone.	266	3.05	0.66	Moderate	3
3. Asking for the customers' needs	254	2.98	0.69	Moderate	7
4. Giving information the working procedures, service procedures, regulations, or prohibitions	272	3.04	0.71	Moderate	4
5. Giving directions	282	3.06	0.67	Moderate	2
6. Business negotiation	260	2.97	0.71	Moderate	8
7. Expressing the opinions in the meeting	267	3.03	0.70	Moderate	5
8. Oral presentation	267	2.98	0.68	Moderate	6
9. Talking about work with the foreign colleagues	244	2.96	0.69	Moderate	9
Total		3.02	0. 69	Moderate	

Note: n = a number of the entrepreneurs that used each skill

The reading skills of the RMUTT interns were also at a moderate level by the entrepreneurs' attitude. The skills most highly used in the workplace were reading work manuals (n=298) and reading news, announcements, or signs (n=298) while the entrepreneurs thought that the RMUTT interns best performed reading emails or business emails ($\overline{X}$ =3.21, S.D.= 0.72) as shown in Table 4.

Table 4 The entrepreneurs' attitude toward reading skills of the RMUTT interns

Reading skills	n	$\overline{X}$	Attitude		
			SD.	Levels	Ranking
1. Reading work manuals	298	3.13	0.73	Moderate	3
2. Reading emails or business emails	281	3.21	0.72	Moderate	1
3. reading news, announcements, or signs	298	3.11	0.73	Moderate	4
4. Reading working documents	282	3.19	0.70	Moderate	2
5. Reading the customers' documents	281	3.11	0.74	Moderate	5
6. Reading minutes of meeting	264	3.03	0.73	Moderate	6
Total		3.13	0.73	Moderate	

Note: n = a number of the entrepreneurs that used each skill

According to the research results for writing skills in Table 5, the entrepreneurs thought that the RMUTT interns could also perform all writing skills in a moderate level. The skill most highly used in the workplace was filling forms (n=280), and this skill of the RMUTT interns was the best skill among all writing skills ($\overline{X}$ =3.05, S.D. = 0.69)

Table 5 The entrepreneurs' attitude toward writing skills of the RMUTT interns

Writing skills	n	$\bar{X}$	Attitude S.D.	Levels	Ranking
1. Recording the customers' information	263	3.03	0.71	Moderate	3
2. Filling forms	280	3.05	0.69	Moderate	1
3. Taking messages on the phone	277	2.97	0.71	Moderate	7
4. Writing and replying emails	274	3.04	0.74	Moderate	2
5. Writing the instructions	279	3.03	0.74	Moderate	4
6. Writing directions to a place	267	2.99	0.74	Moderate	5
7. Minute writing	267	2.93	0.71	Moderate	8
8. Writing work reports	271	2.98	0.70	Moderate	6
Total		3.00	0.72	Moderate	

Note: n = a number of the entrepreneurs that used each skill

The research hypothesis was that the different types of the entrepreneurs had the different attitude toward English proficiency of the RMUTT interns, and it was tested of the significance of difference by using the one-way ANOVA F-test and making the pairwise comparisons with Fisher's Least Significant Difference (LSD). The testing results were shown in Table 6 and Table 7.

Table 6 The research hypothesis tested with the one-way ANOVA F-test

English proficiency	Types of entrepreneurs	n	Mean	S.D.	F	Sig.
Listening skills	Public sector	75	2.75	0.871	2.052	1.06
	State enterprises	51	2.57	0.994		
	Nonprofit organizations	9	3.14	0.746		
	Private sector	199	2.54	0.899		
	Total	334	2.61	0.909		
Speaking skills	Public sector	74	2.69	0.980	2.216	.086
	State enterprises	49	2.42	1.070		
	Nonprofit organizations	9	3.00	0.606		
	Private sector	189	2.44	0.933		
	Total	321	2.51	0.965		
Reading skills	Public sector	73	2.95	0.876	2.488	.060
	State enterprises	53	2.52	0.997		
	Nonprofit organizations	9	2.52	0.724		
	Private sector	192	2.70	0.941		
	Total	327	2.72	0.938		
Writing skills	Public sector	73	2.87	0.763	3.716	.012**
	State enterprises	54	2.41	1.011		
	Nonprofit organizations	9	2.58	0.390		
	Private sector	183	2.48	0.969		
	Total	319	2.56	0.935		
Overall	Public sector	72	2.84	0.751	1.942	.123
	State enterprises	48	2.52	0.914		
	Nonprofit organizations	9	2.81	0.472		
	Private sector	171	2.65	0.743		
	Total	300	2.68	0.772		

According to Table 6, the hypothesis was tested by using the one-way ANOVA F-test at the significant level of .05. The overall result found that the different types of the entrepreneurs had no different attitude toward English proficiency of the RMUTT interns at the statistically significant level of .05. Considering each skill, the different types of the entrepreneurs had no different attitude toward listening, speaking, and reading skills of the RMUTT interns; however, the different types of the entrepreneurs had the different attitude toward writing skills at the statistically significant level of .05.

Table 7 The pairwise comparisons of writing skills with Fisher's Least Significant Difference (LSD)

Writing skills	Pairwise comparisons (Mean Difference (I-J) Mean	X1	X2	X3	X4
X1 Public sector	2.87	-	.47(**)	.29	.39(**)
X2 State enterprises	2.41		-	-.18	-.08
X3 Nonprofit organizations	2.58			-	.10
X4 Private sector	2.48				-

**p < .05

As seen in Table 7, the entrepreneurs in the public sector (the government agencies) had the different attitude toward writing skills of the RMUTT interns greater than the entrepreneurs in the private sector and nonprofit organizations.

However, the entrepreneurs provided some recommendations on how the students could improve listening, speaking, reading and writing skills including other recommendations for the educational institutes as shown in Table 8.

Table 8 Entrepreneurs' recommendations

Recommendations	n	%
1. Train the students for all four skills until the students are confident and use English language practically	25	83.33
2. Offer special English language courses at work emphasizing foundation listening, speaking, reading, and writing before internship and separate these courses from general English courses	20	66.67
3. Assess the students' English language proficiency before internship in order to give proper work assignments	11	36.67
4. Offer courses in English for specific purposes and English for presentations	8	26.67
5. Set the English language proficiency testing	4	13.33

Note: n = a number of respondents

V. DISCUSSIONS

The research results of the entrepreneurs' attitude toward English proficiency of the RMUTT interns reflected the English language learning management meeting the stakeholders that could be discussed as follows:

1. The overall attitude of the entrepreneurs toward English proficiency of the RMUTT interns was at a moderate level; moreover, when considering each skill, it was also placed at a moderate level. All skills could be arranged in descending order by mean: listening skills,

reading skills, speaking skills, and writing skills relatively. This result showed that the RMUTT interns could perform the receptive skills better than productive skills. [4] noted that the language users in any languages have greater receptive competence than productive competence. Furthermore, this might be caused by the unfamiliarity to communicate in English, the lack of using English language skills in the real situations including the differences in the fundamentals of English language skills affecting the confidence to communicate in English. [5] noted that Thailand's education system did not meet each students' individual learner needs, social needs, and country's needs. When the students graduated, they could not use English language effectively. It is related to the research recommendations of [2] that there should be more English language courses provided to prepare the Thai graduates for their future careers. Furthermore, it is supported by the entrepreneurs' recommendations that before starting the internship the students should take more English courses to improve their English skills in order to be ready for internship and these courses should be separated from the general English courses.

1.1 Listening skills of the RMUTT interns were at a moderate level, and the skill with the highest mean was listening to the manager's instructions with the technical terms. It was because the interns had the specialized knowledge in a particular discipline or profession that could transfer the information with the appropriate translation of the target language [6]. This is because professional careers need their terminology knowledge in order to understand the intricate details of work. [7] noted that the employees should improve listening skills because it was important for workplace communication that was greatly involved with terminology.

1.2. Speaking skills of the RMUTT interns were at a moderate level, and the skill with the highest mean was speaking in everyday life, such as greeting, welcoming, complementing, apologizing to customers, and saying goodbye to customers. It was consistent with the research of [2] that most undergraduate students had the speaking skills at the moderate level. Compared to CEFR [8], the speaking skills of RMUTT interns could be defined as basic users. This is because the students had no chance to use English language in everyday life. The lack of practice made the students lack confidence in speaking related to [9] found that the anxiety and the lack of self-confidence hindered them from using English. It is also related to [10] that the English speaking of the homestay owners in Ubon Ratchathani was unclear and difficult to understand, and sometimes made the tourists misunderstand.

1.3 Reading skills of the RMUTT interns were at a moderate level, and the skill with the highest mean was reading emails or business emails. It is because these kinds of materials could be commonly found related to [11] that reading was an English communication skill that was mostly used by reading electronic mails and information from the internet. And it is consistent with [12] media of communication mostly used in Thai workplace was email (94.4%)

1.4 Writing skills of the RMUTT interns were at a moderate level, and the skill with the highest mean was filling a form. As [13] mentioned, the writing skills were necessary, especially hotel front desk staff, for example, guest registration, filling hotel forms, and taking messages for guests.

2. According to hypothesis tests, the entrepreneurs in the public sector (the government agencies) had the different attitude toward writing skills of the RMUTT interns greater than the entrepreneurs in the private sector and nonprofit organizations. [14] said that writing in the public sector had to be clear and concise and lead to the right results because it involved life-and-death situations.

VI. RECOMMENDATIONS

A. Recommendations for Practices

1. The universities should cooperate with the entrepreneurs to improve and develop the curriculum for English language learning covering all 4 skills: listening, speaking, reading, and writing. Also, the curriculum should be up to date to meet the entrepreneurs' needs as well as providing the activities consistent with the future careers and the students' needs. Moreover, the opportunities to use the English language should be provided in order that the students develop and prepare themselves before starting internship, for example, receiving the visiting delegations, English proficiency testing, etc. English language and subject content should be integrated in order to let the students familiar with the terminology.

2. English teaching and learning with the native speakers as well as teaching practical English language skills are great opportunities to practice using English with confidence. The extra English language courses might be provided to support the students' needs. The English language teachers should often update the new teaching techniques.

B. Recommendations for Further Research

1. This research was only quantitative research, so conducting the qualitative research for the next research

will get more understanding and more practical, such as in-depth interviews.

2. The time before starting the internship or before graduation is limited, so the factor analysis of English language development for interns should be studied to use as a guideline for the students' internship preparation and future careers.

3. Because of getting into the technology disruption era, each curriculum should be re-researched to update the new content and integrate it with English language subjects in order to meet the entrepreneurs' needs.

CONCLUSION

In conclusion, according to the research results, many entrepreneurs did not recruit new employees by using the English proficiency test; but from the entrepreneurs' recommendations, they seem to want the competent employees. Moreover, because of technological advancements changing the world, such as ubiquitous commerce, the entrepreneurs are more likely to be multinational or contact more foreign customers. Keeping the students' using English is a simple and effective way to increase their confidence and lower their anxiety.

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Non - Native Speakers Motivation in Learning English as Second Language

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Abstract—The demand for a good communication is the basis for every language learning activity, regardless of the language being learned. Studies on language leaning have shown that motivation is a key role, which moves a learner towards attaining proficiency in the goal language. The target of studying may be communicative, linguistic, materialistic or academic. It could also take from the need to improve one's linguistic skills already acquired, in order to be a more competent user of the language and to be better communicator. In this situation, as a cognitive factor motivation plays an important role in learning English as a second or a Foreign language. The objective of this present article analyzes the motivation in learning English as second language of non - native speakers. The non - native speakers are from different social and educational backgrounds. The results of the study show that motivation is an important portion which language learning and varies with individual learners. What triggers motivation is the focus of the study that takes a few interesting attitudes of the leaners to limelight.

Index Terms—*Motivation, Second Language, Non - Native Speakers*

I. INTRODUCTION

The current world society gives English as the universal language because it is needed in developing countries. These countries give English as the second language and the people of each country, they have to learn it in daily life. Especially communication, writing and speaking are the important skills. Nowadays communication requires more and faster tools to communicate around the world. English is a language that is inserted into the use of those tools. If the users of the communication tool do not have the knowledge of the language, they must face the problems for communication. In addition, English is also inserted into the common media, which everyone must learn and touch it every day [1]. In this world, there is a diversity of profession in many careers, and each occupation need to use different forms of English in the four skills: listening, speaking, reading, and writing [2].

On the other hand, English has been having an important role in the world wide, especially in the education as a tool of communication. Common English is generally set to be a part of the activities for students in most of the schools and colleges in order to improve their English. Motivation plays a significant role in the process of learning the English language. Motivation is something that supports someone to do something. Harmer reported that motivation is some kind of internal drive which pushes someone to do some things in order to achieve something. Without motivation, the goal of learning is difficult to be reached [3]. Brown stated that

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motivation is one of influential factor in English learning. Motivation is also a factor of high or low of the goal. It is the key of success in learning process. Without motivation, the goal of learning is difficult to be reached. By having motivation, students will be enthusiastic in learning process so they will be pushed to study English well. For example, a learner who does not have motivation in learning English will be lazy to learn because there is no any stimulus that drives him or her in learning English [4].

In Thai context, English is not the first language. For that reason, the motivation in English learning is actually important feature that could determine the success or the failure of oneself. Thus, the teachers teaching English should understand the relationship between motivation and its effect on language acquisition. Besides, Hawke stated that successful learners know their preferences, their strengths and weaknesses, and effectively utilize strengths and compensate for weaknesses. Successful language learning is linked to the learner's passion [5]. Consequently, Lustig and Koester suggested instructors should find ways to connect to this passion. Students and teachers who have their own cultures' beliefs, norms, values, and the differences in their cultural backgrounds may cause developmental variations in their language acquisition [6].

Motivation has been identified as the learner's orientation with regard to the goal of learning a second language [7]. It is thought that students who are most successful when learning a target language are those who like the people that speak the language, admire the culture and have a desire to become familiar with or even integrate into the society in which the language is used [8]. This form of motivation is known as integrative motivation. When someone becomes a resident in a new community that uses the target language in its social interactions, integrative motivation is a key component in assisting the learner to develop some level of proficiency in the language. It becomes a necessity, in order to operate socially in the community and become one of its members.

Gardner mentioned a number of factors that are involved in learning a second language (L2). They range from socio-cultural contexts, differences in individual learning competences, the language learning situation and the like. In Gardner's view, the most influential in second-language acquisition are the four individual differences: intelligence, language capacity, motivation, and situational anxiety. These factors could also account for the differences in Foreign Language learning situation. The non- native speaker's study pattern to assess the motivation levels and attempt to assign a plausible explanation in tern of internal factors like their individual learning needs and abilities, or the external factors like the peer group, social set up in which the learning is being affected. Considering pragmatically, the context in which the learners find themselves driven to take English language courses is more to find a suitable employment rather than the academic interest in the language. Needless to say, that the major social factor is the urge to be able to communicate fluently in English, either to be treated as one of the educated class of the community, or to keep pace with the language of technology, which is the order of the day. Technology is one area which makes every user of electronic gadgets want to read and understand and be able to communicate in English language comfortably. This in turn moves them closer towards better opportunity in employment sector, which is again a social prestige, apart from the need to be economically and socially independent [9].

Motivation is the most powerful element which influences language learning and hence should be given an important place in the list of criteria in learning. Narayanan discusses some issues related to motivation in Second Language. The questions addressed include the meaning of the term 'motivation', types of motivation and the characteristics of

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motivated learners. Special emphasis is laid on the role of the teacher in motivating students [10].

Lantos explains that often teachers use grades, awards and other forms of extrinsic motivators to increase students, motivation levels to learn and accomplish their goals. Lantos believes that increasing extrinsic motivation entails both positive and negative enforcement techniques. But the truth still remains that these extrinsic factors are transitory which result in short-term behavioral changes. Therefore, the best way to motivate is to use intrinsic factors like counselling and appealing to the intellect of the learners, to value learning and enhance their knowledge power. This would also make the students responsible for their learning and attaining long-lasting results [11]. As White contend, motivation is a result of the influence teachers have on their learners, to put their energy constructively into learning and increase their intrinsic motivation to learn. In order to understand the clearly contents, it is necessary to present the role of learners now [12].

II. THE ROL OF LEARNERS

Having discussed the meaning and the signification of motivation, let us look at the motivated learner as an individual who can learn or who is ready to receive the 'input' from the teacher or, is willing to put in efforts to receive the 'input'. This is a positive learning situation compared to a reluctant learner who has to be compelled or forced to receive the input from the teacher or from any other source, through auto-learning methods. Whatever be the kind of learner, there are a few positive traits to observe in a willing learner: They can be summed up as follows:

1. Ego involvement, or complete physical and psychological involvement of the learners in the learning process. They use cognitive and physical skills in learning activities.
2. High aspirations, i.e., setting high goals during and after the learning process. A positive and a goal-based learner set their goals high, considering their strengths and weaknesses.
3. Tolerance, i.e., patience to endure learning problems and willingness to overcome them. Not all learning happens smoothly. There are several challengers to be faced in the path. This is a dominant quality of a good learner.
4. Need for achievement, that is, they exhibit an urge to excel and show one's success in learning both to oneself and

to others. Every learning act is driven by a need of some kind. A good learner must be aware of his needs to learn.
5. Positive task orientation, they are positively oriented to perform the learning task. That is, they are willing to learn a new language item or perform a language task in the class.
6. Goal orientation, i-e; being focused on the goals set by self or by the external agents like the situation. They are not diverted from the objective set to be achieved.
7. Perseverance, i.e. consistent and systematic efforts made in the learning. No learning is affected without perseverance and consistent efforts.

While the above factors point to the qualities of a good learner, the role of a teacher in motivating a learner towards achieving the goal can never be undermined. Motivation often performs two important tasks in the process of second language learning. It evokes the curiosity of the learners to explore the knowledge acquired and it helps in continuing the enthusiasm to move forward. Thus, motivation to learn a second language depends on the individual choice one makes. It differs from one person to another and varies with different situations. After presenting the role of learners, let us examine the motivation in Language here.

III. MOTIVATION IN LANGUGE LEARNING

Having motivation has important role in language learning. People try to learn a language because they would like to engage themselves in a learning activity, both physically and mentally. The desire to achieve their goal leads to a complete involvement of their physical and mental faculties. Such a learner has a positive approach to learning a language for its own sake and is driven by self-interest and is oriented better towards learning. This brings about a more successful learning than in the case of a learner who is less positively oriented. Learning also often occurs when a learner is pressurized to learn a language to be identified with the upper class of the society which gains them social prestige. Being able to communicate in the language of a desired community is an equally powerful driving force, which makes a person learn to communicate in a language. Such individuals often find themselves in an immersion situation and this offers them the best opportunity to learn a language fast.

With children motivation is higher compared to adult learners of a second language. Age plays a major role in motivating a person to learn languages. Children learn using a play way manner with no internal or external pressures, or inhibitions or compulsive forces. With the adult learners, however, both the internal and external factors contribute to learning a second language. With the

adult learners, external pressures and desperate situations compel a learner to learn a language. The pace which their learns are a subjective process. An individual is motivated internally makes sincere efforts to learn the language, being aware of their strengths and weaknesses, and makes a focused attempt at overcoming the weaknesses in the aspects acquired. Such an individual is a willing learner and achieves their goals in learning faster. In the process, an intrinsically motivated language learner puts in extra efforts beyond their cognitive and linguistic abilities and enjoys every effort they put in. This situation can arise out of an inspiration drawn from the society, the institution or any individual which has attained the learners desired level and serves them as a role model. To this category of learner's adult, learners of a Foreign Language can be added, whose purpose of learning is solely to attain the level of an individual through inspiration. The desire can also arise out of the learners' positive attitude towards the target-language.

Certain socio-cultural situations also exist where for the mere survival of an individual, learners are compelled to learn a language. For instance, a job seeking individual which finds a lucrative offer overseas is compelled to learn the local language for survival. Such people end up learning to use the language more fluently in informal situations like interactions with local individuals for their daily living. In the case of formal language learning classroom, the learners are not driven by the need for survival but it is a desire to use a language accurately and fluently, which brings about learning. After description the role motivation in learning language, it is necessary to present the model of SLA which is given by Gardner and MacIntyre here.

IV. MODEL OF SLA BY GARNER & MACINTYRE

Motivation in this model is defined as the extent to which the individual works or strives to learn the language because of a desire to learn the language and the satisfaction experienced in this activity. A "motivated learner" is, therefore, defined as one who is: (a) eager to learn the language, (b) willing to expend effort on the learning activity, and (c) willing to sustain the learning activity [13].

Viewed from a social perspective, language is the possession of a social group and interaction in the society is possible only through language. Language exists in the society and helps nourish and develop culture and create human relations. Through language, culture is transmitted, friendship is built and relationships are nurtured in human society. Thus, language helps the society by keeping language(s) alive. So, one of the motivating factors in

learning a new language is to get closer to the culture or to preserve and continue the existing culture.

Some common features that can motivate language learning and serve as stimuli are:
1. To gain awareness of legal, social and commercial aspects of day to day living.
2. An urge for knowledge of science, mass media and technology.
3. To make better use of career opportunities and for financial growth.
4. An urge for working in the fields of administration, education and culture.
5. To develop international connections in the contemporary world.

The list is endless and each factor reflects the nature and the attitude every learner towards learning in general, with no particular reference to any discipline. On the other hand, a lack of motivation on the part of the learner can be the most deterrent factor in a learning situation and demotivating for the teaching and the peers alike. Next, it is the presenting of lack of motivation in learning a Second Language.

Lack of motivation in learning a Second Language (SL)
Many factors help to lack of motivation in learning a language, either as a Second Language (SL). Some of the most common factors are:
1. Lack of coordination between the learning out comes and the modern-day development, in the light of modernization and globalization.
2. Lack of employment opportunities suitable to the language learnt.
3. Non-use of teaching aids and illustrations in creating situations to make teaching and learning a meaningful process.
4. Lack of clear utility which is the main motive behind acquiring a language skill. The language learnt must be used after acquiring a certain level of proficiency.
5. Lack of suitable material, appropriate to the needs and levels of the learners, for instance, teaching aids such as audio-visual tools, reading material, pictures, charts, handbooks, software or reference material essential for learning a second language.
6. Lack of scientific precision in the methodology adopted.
7. Lack of enthusiasm to learn the language.
8. Lack of exposure to the target language. Without exposure to the new language, learners do not make an effort to learn.
9. Lack of trained and expert teaching and guidance.
10. Absence of a specific goal by the teacher and the learner to be able to speak better and write better in the target language.

In order to understand the clearly Motivation in second language, it is necessary to present the role of teachers here because the role of teacher has the significant trait.

V. THE ROL OF TEACHERS

A. successful class-room lesson is largely attributed to a successful teacher, in motivating the learners in their active listening and participation. Therefore, the teacher needs to exhibit an equally positive and dominant to bringing about successful learning. In other words, the learning outcomes are directly related to the level of motivation created by the teacher. Some of the most striking features of a well-motivated teacher are:
1. Be a good facilitator than a good performer in the class.
2. Explore different ways to address problems and issues arising in the learning situation immediately and in a subtle manner.
3. Listen to and understand learners with empathy and provide them with sufficient support and opportunity to perform.
4. Be appreciative of the achievements, no matter how small or little.
5. Acknowledge every positive effort made by the learner towards learning.
6. Create the conditions conductive to make people want to learn.
7. Identify the need for motivation where necessary and attempt to remove the obstacles which cause de-motivation.
8. Utilize oneself and one's experience as a demon stable model in teaching and learning.
9. Be fair and just in evaluating the learners' performances and,

According to Davis, teacher behaviors that can influence student motivation can be broadly grouped into two categories; teacher behaviors in the classroom that motivate students, and structuring the course to motivate students. Focusing teaching on what students are interested in can clearly increase their motivation. Because students learn differently, it makes sense that structuring the course to allow them to work from their strengths would increase their motivation to perform. Therefore, allowing students to choose from a variety of graded assignments, oral presentations, written presentations and even variety on exams can increase students' motivation to perform well. A course that is well-organized will also motivate students more than one that is not, if students perceive that the teacher has put a lot of effort into the course, they will often be likewise motivated [14].

VI. THE PRESENT SITUATION OF LEARNING ENGLISH

Students are motivated to learn to achieve more in the classroom [15]. In his study of student performance in a system, that segregates learners by ability, Carbonaro demonstrates through evidence that students who exerted more effort achieved more. In a group of mixed abilities, a highly motivated and hence a high achiever can bring about a high level of achievement from low or no achievers. Ultimately, the responsibility of learning itself rests on the students themselves, because teachers, on their part would focus on students who want to learn to impact the 'how' and 'what' to learn. Following the view of Carbonaro the present study divides the student groups based on their varying abilities, to find out the motivation and the achievement levels in an ESL classroom [16].

A preliminary observation of the group of learners points to the fact that despite the homogeneity which exists in the group in terms of the learner's mother tongue, variation in learning occurs due to certain internal factors. This is evidenced by the proficiency levels attained in English language at the end of a semester. Often the presence or lack of motivation among the learners is noticed, which results in different degrees of learning, measured in terms of their grades obtained in a standard assessment at the end of the semester.

Interestingly experimental level, the low achievers were fairly motivated to become responsive learners from the initial passive observers in a class room. This is an evidence to prove that the less motivated learners, left to learn individually, were not only unresponsive, but they were distracted, disruptive and distracting elements in the teaching learning situation. This attitude changed to a more positive one whatever was the factor which can be accounted for this change, either due to the influence of the motivated group of learners, due to the conducive atmosphere or due to the group activities. The results of the presence of motivated individuals in the language class were extremely encouraging.

Interest is the key to learning. A team work and a play-way method can be used to create interest in learning. Conventional methods of teaching are effective, but innovative methods of teaching, games and practice techniques make learning a language very interesting. Bill and Clodfelter contend that by allowing students to have some input into their own grading system, they become more motivated because they are involved in the learning process. One effective method is making one member of every team the moderator of the team (preferably who ranges from a low to medium level achiever), who will assign grades to individual team members and to report the overall performance of the team on a four-point scale of excellent, very good, good, and poor [17].

Language is a tool used for the preservation and transmission of knowledge and culture. It is dynamic and

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can grow and expand itself with the social needs and demands. Language is also systematic and includes the phonological, geographical, morphological, syntactical and semantic systems, which give complexity to human language. The aim of language is to equip one with the means to transmit information and is directly linked with the skills which are to be developed through constant practice. This is done regularly and systematically through motivated approach or induced motivation among the learners. Taking this aspect into consideration the material used for the study was particularly selected to suit the levels and the cultural background of the learners.

Ramona Tang talks about the place of culture in the Foreign Language (FL) Class room and investigates the motivation to language learning. Tang's reflections about the inclusion or exclusion of culture in FL curriculum, leads us to consider the importance and implications of 'culture' in language learning, either as FL or SL. Therefore, while selecting the material for teaching reading or writing components, it would motivate students to read or write about topics of their own culture or related cultures [18].

Educationists and researchers on language teaching have often emphasized the fact that a reading text must be culturally appropriate for use in a class-room, even if the focus is on learning the language skills and not on the content. What is appropriate and acceptable in one culture could be completely forbidden in another. With the result that, there is resistance among the learners to use the vocabulary and expressions introduced in the classroom. This attitude becomes increasingly difficult in the case of a mixed group of learners, in terms of social groups, gender and age [19].

Some effective ways to motivate the learners to result in better outcomes are:
1. Learners must put in sincere efforts, even in a controlled atmosphere.
2. Learners need to perceive and abstract the learning input because a good reflective
memory can serve as an important psychological attribute in learning a language.
3. The teacher must provide a stimulating environment, opportunities and facilities to the learners.
4. Readiness to learn comes from a friendly and warm learning atmosphere from the teacher and from the emotional adaptability of the learner. Therefore, a teacher must be endowed with these attributes.
5. Judicious use of rewards and punishments influence language learning abilities is advisable. So, while rewards must be reasonably high and punishments must be carefully measured.
6. Fear, hatred or laziness are to be completely avoided.

7. Positive reinforcement must be provided through informal agents to learners like parents, relatives and friends. This has often proved to be a very successful method.
8. Proper orientation to reuse the language learnt generates more interest among the learner and makes learning a language a pleasurable exercise. This aspect must be meticulously planned both prior to and post learning sessions.

Many teachers have found language and culture inseparable and so I am in agreement with those who argue for the acquisition of language through its culture. Because, it is very unlikely that an individual who is instrumentally motivated. It does not get drawn into the cultural aspects associated with the language being learnt, with materialistic objectives. It is observed very often that once the ability to communicate in a language is acquired; there is a natural tendency to learn the socio-cultural aspects as well.

CONCLUSION

The study conducted a preliminary investigation to serve the influence of motivation on the rate of success in learning a new language. One of the inferences which can be drawn from the study is that motivation is a key variable and an important variable in a second language class room. Among the important variable in learners, Gardner and Macintyre quote motivation as the key variable. Every individual has innated ability to acquire and learn a language through different modes of instruction [20]. One of the major factors contributing to learning is motivation. Motivation can be intrinsic, depending on the personal needs or interest of the learner [21]. Again, intrinsic motivation can arise out of the learner's desire to be identified as a part of the language community. This could arise from the fact, the learner wishes to imbibe the culture, particularly, if the learner is living in the same country where the target language is being used. The motivation can also be extrinsic, resulting from the learning situation, and the learning environment. Motivation, thus, plays an important role in bringing about either extremely positive or extremely negative results in language learning.

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Comparison on Understanding of Facebook's Live Streams According to Shariah Principles for Thai, Malaysian and Indonesian Online Entrepreneurs

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Abstract—The fast growth of digital marketing, social media live stream is one of the provided tools for business competitive such as Facebook, Line, and Instagram. In today's Islamic business is still very much less presented a clear understanding about Shariah principles. Since adoption trend on Facebook's live stream has exponentially increased and become the main issue on digital marketing for Muslim communities. This research aims to study and compare a clear understanding of Facebook's live streaming according to Shariah principalfor Thai, Malaysian, and Indonesian. This qualitative research used interview form. We primarily focus on online entrepreneurs based on in-depth interview. Data were collected from 6 key informants from Thailand, Malaysia, and Indonesia. These qualitative data was proposed and analyzed using content analysis. Results indicated that: 1) they are mostly less concern with Shariah principles for online marketing because quickly diffusion on today's technologies. They are just only to gain high profit of the worldwide market size from national and international targets. 2) the lack of understanding Islamic Shariah as adapted principle,where it is applied to conceptual business model for Facebook's live stream in practical. As a result,the streamers unaware the relative impact to online consumers. 3) In particular, the streamers have a significant relationship to online consumers. They are mainly tended attracting only towards live stream advertisements. Future study is actively to encourage Islamic organization to build a framework or platform to train a new entrepreneur on digital marketing for Facebook's live stream. Additionally, it also can provide the reliable information to the best support for their enterprise.

Index Terms—*Live Stream, Digital Marketing, Shariah principle*

I. INTRODUCTION

In digital era, it is a matter of fact that the number of digital marketing drastically increased. Digital Internet marketing has significantly impact to the consumer behavior [1]. Due to the exponentially growth in advanced technologies, social media comes to play an important role that is involved in many business sectors.These fast evolutions of the technologies can produce on the high demand and supply for their products to consumer all around the world. The concept of Social media is clearly adopted to young generations [2]. Facebook's live streams have become a crucial media on running online business [3]. With the popularity of the Facebook, the online entrepreneurs tend to attract the consumer's interests to sell their products.

The concept of social media is the way of interaction among people in order to create, share and exchange information [4]. This idea can be referred as virtual communities and networks. It depends on mobile and internet's web-based technologies and highly effectives on an interactive platform. Additionally, individual and communities in this globalization media can also share, co-create, discuss and modify user-generated contents. Furthermore, it has substantially introduced and pervasive changed where highly facilitates between organizations, communities and individual [5]. It has excellently played as the main role forcommunication.

An increasing number competitive businesses where trading environment are significantly target for high demand on consumer of the products. A company has been attempted to attract their clients to earn high benefits in trading. Insight of digital marketing and its strategies for the business need the skills to act of promoting and selling products such as social media marketing, search marketing, and email marketing [6].Today'ssocial media has been presentedincredibly popular to single grouping of humans in the world [7] as illustrated in Fig.2.
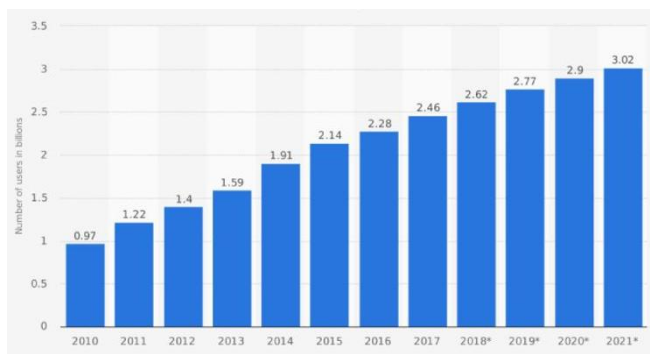
Fig. 1 The number of social network user worldwide from 2010 to 2021 (in billion).

From Fig.1 The estimation of people uses this social media is around 2.9 billion people by 2020 and expect that by 2021 will reach 3.2 billion [7]. That is 1:3 of the human race. Therefore, this audience represents the single most significant target for any company or organization. If they want to successfully achieve on the business and broadly message their brand across the globe as the winning strategy.Besides that, digital marketing using social media is slightly overwhelm than tradition marketing in many ways [8]. But in both, the smart organizations attempt to expand and advance relationships with prospects, leads, and customers for firmly sustainingtheir mutual benefit as illustrated in Fig.2.

Fig. 2 The main reasons of using social media for running business.

In addition, Fig.2 dependently depicts ultimate buying decisions with online digital marketing. They are absolutely an essential step to reach their goal for digital marketing on race day in social media marketing. It is especially that need to define the best suit alignment with over all business goals.

II. LITERATURE REVIEW

Currently, the big picture of Internet usage statistic is over 4.92 billion peopleas active userswhen we compare to overall 7.79 billion of the world regions [9]. From Fig.3, the trend of usage Internet is in Asia whicharound 51.8 % if comparing to other in the world.Number of the user in Asia illustrated two time of bigger than (Europe and Africa).
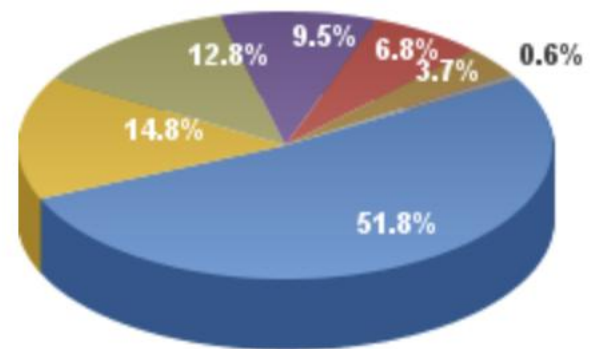
Fig. 3 Internet users in the world by geographic regions

In the global state of digital, the number of using mobile phones around the world is 5.20 billion people while the world population is totally 7.81 billion people [9]. Fig.4 shown the popularity of using mobile device in percentage with 55.73% where it grows rapidly. It is greater than desktop but tablet indicated only small amount of market share worldwide with only 2.81%.The fast growth of digital technology, these devices have been played an important role to benefit social media marketing. Additionally, Fig.5 shown Web browser that is an adoption of these devices to social networking capabilities. Fundamentally, Fig.6(a), Fig.6(b), Fig.6(c) and Fig.6(d) where these social mediahave rapid rate altering the path-to-purchase process [10]. It also allows customers to easily get their products and know the price information in real time. With this Facebook's application allows companies to immediately update and get to know their clients. Moreover, this can facilitate customer interaction in either website or mobile application.

Fig.4 Desktop vs Mobile vs Tablet Market Share Worldwide

Fig.5 Browser Market Share Worldwide

Fig.6(a) Social Media Stats Worldwide

Facebook	Twitter	YouTube	Pinterest	reddit	VKontakte
68.49%	14.11%	6.09%	5.11%	4.12%	1.5%

Fig.6(b) Social Media Stats in Thailand

Facebook	YouTube	Instagram	Pinterest	Twitter	Tumblr
53.63%	28.98%	6.44%	5.5%	5.18%	0.09%

Fig.6(c) Social Media Stats in Indonesia

Facebook	Pinterest	YouTube	Twitter	Instagram	re
86.06%	5.84%	4.13%	2.33%	1.22%	0

Fig.6(d) Social Media Stats in Indonesia

In order to achieve social media's live stream in running the business effectively. Facebook comes to main consideration where streamers need to connect with online service to promote the products to consumers. This Facebookactivities involves in 3 main countries. It includes Thailand, Malaysia, and also Indonesia. Fig.7 show the number of monthly active Facebook users worldwide as of 3ʳᵈ quarter 2020 [11].
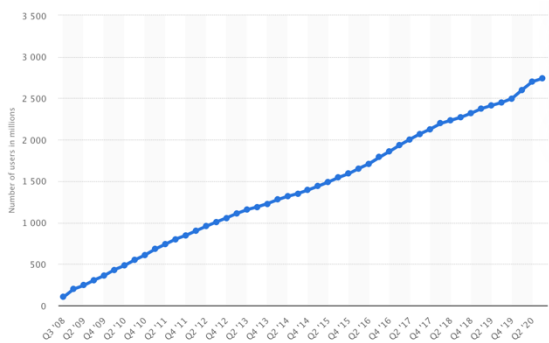
Fig.7 the monthly active Facebook users Worldwide

Facebook has actives user monthly with over 2.7 billion people worldwide [11]. It is considered ass the biggest social network in the world. The number of active users has achieved one billion in 2012 of third quarter. It is the first-place social network ever do so. These active users have logged in to Facebook during the last 30 days. Within the last reported quarter, the company reported that 3.14 billion people were using at least one of the company's core products such as Facebook, Messenger, WhatsApp, and Instagram each month.In general, Facebook application allow individuals, businesses and others organizations to interact with one another. It can also build relationships and communities within online.

Fig.8 show the number of Facebook users in Thailand from 2017 to 2025 [12]. In 2020, this number of Facebook users in Thailand reached to 48.5 million people on average. It is also increase dramatically on the number of user when compare to the previous years. This social network was accessed by close to two million users on a monthly basis. In particular, overall number of internet users in Thailand in 2019 were 50.31 million. The most of them were using Facebook. That is why online streaming in for business purposed are considerably important to run digital

marketing. It is also around 50 million social network users in Thailand are focusing on Facebook marketing. Beside that users are intend to several implication for the success of e-commerce and businesses. The Facebook itself can also serve both as information and online shopping channel for any digital consumers.
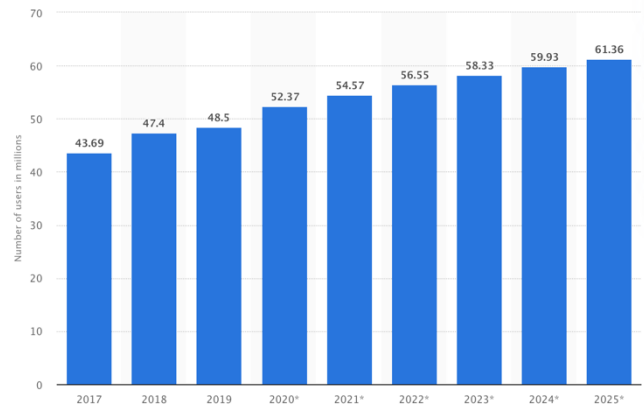
Fig.8 show the number of Facebook users in Thailand from 2017 to 2025

Fig.9 show the number of Facebook users in Malaysia from 2017 to 2025 [13]. This statistic of Facebook users mainly shows the amount of population in Malaysia and a forecast up to 2025. It is expected by 2025 will reach to 27.34 million people. The number of active users is up from 20.65 million in 2027. The graph show that the number of users also dramatically increase every year.

In digital business marketing activities, to be clear understanding of how the Facebook's streamers consider their activities as illustrated in Fig.10. The number of Facebook users in Indonesia were around 170.6 million people [14]. This data taken in December 2020 and reached to 62.1% of its entire population. Most of the Facebook's population were men in majority which is 54.3% of all users in Indonesia. It is clearly seen that the largest group of users is the people that aged around 25 to 34 (it is estimately around 58 million Facebook users in total. The highest difference between men and women occurs within people aged 25 to 34, where men lead by 8 million user
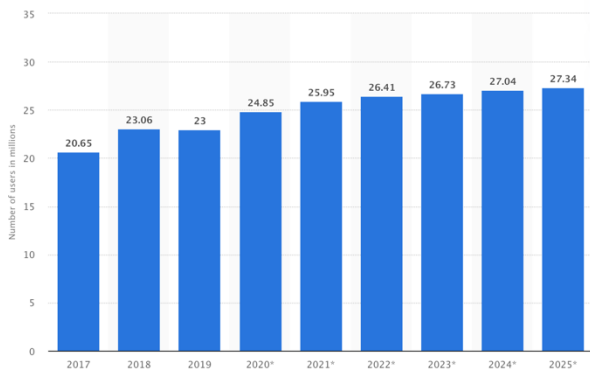
Fig.9 show the number of Facebook users in Malaysia from 2017 to 2025

Fig.10. The number of Facebook users in Indonesia in December 2020
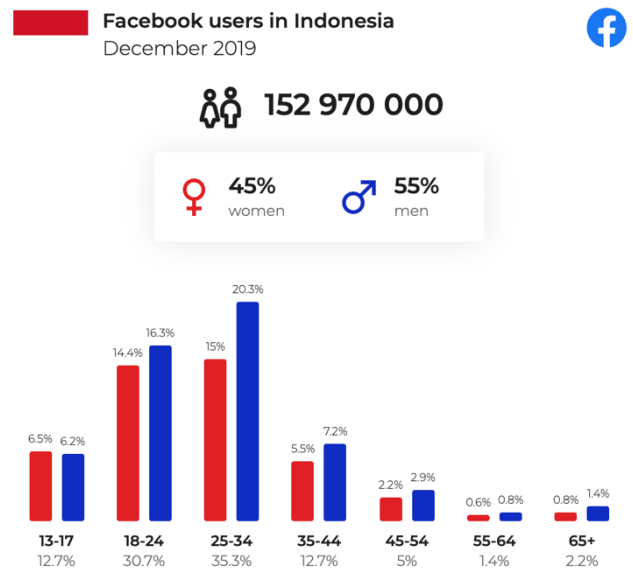
Fig.11. The number of Facebook users in Indonesia in December 2019

In other word,Fig.11. show the number of Facebook users in Indonesia in December 2019 [15]. The amount of Facebook users were 152.97 million people. It accounted for 55.57% of its entire population. The majority of them were men. It is 55% of men. We found that the largest group of people were age 25 to 34 that mostly interest and active on Facebook which is around 54 million users. The men and women within people aged 25 and 34 found highly highest difference that led to 8 million users. From Fig.11 and Fig.10 found that there is slightly changing on the Facebook activities and prove with small increase to Facebook users.

In other word, most of the business activities on digital marketing are only concern to customer relation with streamers. A few researches on Facebook's Live streams according to Shariah. Most of the companies, business sectors, or streamers that involved in digital business marketing trying to avoid shariah. The term of Shariah' word is mean Islamic law [16].

The fast growth of social media marketing by using ofFacebook steaming. Generally, most of them are unaware of rules and regulation as the impact to consumers and the streamers [17]. They just need to make marketing campaign and aware of emergence of different social marketing channel. They also concerns on a wider marketing opportunity invisible on the web and become popularity. How your website ranks on the search engine. Most of their behavior just only focus on predication of customer purchasing products and services [18].

Most the streamer, they are target only sell their products during Facebook's live stream [19]. In order to affects the buyer's buying in making decisions, they try to attract our understandingof the product and the way of champagning, whereas to reach maximum solution in selling. Perception

plays an important role to determine consumer behavior [18].

Social media integrated with search engine optimization strategies on website traffic. The marketer are trying to put the trending to consumer it is due to large amount of active Facebook are on the screen.

As the number of Muslim's is drastically increase on high demands [19]. There are a few researches that directly to the concept of Shariah compliant for digital marketing business. It has become a vital concern to young generation. Particularly in designing a concept of Shariah following Islamic Law. Most of the research are generally mention on social issue but not in area of digital technology [19]. This is because rapidly dissemination of technologies and knowledge. One the rapidly grow in innovation technology such as Internet has become the-word of-mouth "online". The tools using with online technology are also include tablets, social networking platforms (such as Facebook, Line, WhatsApp and etc.). it will make this world like a small village [21, 22].

III. RESEARCH METHODOLOGY

Participant Selection

This qualitative research studies on an online entrepreneur using in-deep interview to collect data. The participants involved in this study were 6 key online entrepreneur informants from Thai, Malay, and Indonesia. The main reason for this selection was based on the nature of the study, as it investigates how online entrepreneur perceive about Shariah principles for online marketing. The research objective of this study addressed based on 'purposive sampling' [23] wasthe main strategy used by choosing the participant for this study. The participants were chosen for the study if they fulfilled the following practical criteria: a good streamer background and experience in according to Shariah principles. Such experience might be directly or indirectly gained through studying and participating in field of digital streamingin three country, i.e., Thailand, Malaysia, and Indonesia with live streaminvolvement.We also focus on entrepreneur that have well understanding on online marketing. Then, we justify the survey's answer of interviewees questioned on issue of Facebook's live streaming based on Shariah principles to suitable experiences on online digital marketing.

Data analysis

Finding and discussion

This section present key findings and discussion from 6 interview participants that involve each 2 participants from Thailand, Malaysia, and Indonesia accordingly.The response of the participants is a translation from their original language to English i.e., Thai to English, Malay to English, and Indo to English respectively. The result indicated 3 significant themes in Thailand, Malaysia, and Indonesia respectively to achieve effective solution for online digital marketing: Shariah learning objectives; Shariah teaching materials; and Shariah curriculum contents. Each theme is explained in details of each following section.

Shariah learning objectives

In drastically advanced technology, Internet has been adopted to our daily life. Most of human on earth today are closely transform their communication's lifestyle from traditional to high innovation of technologies. Since that the adoption of Internet, humans change their tradition social media to social network with technology. In particular, when we bring Internet to business. One of the main challenges is Facebook's live streams. At this context, we study on survey to understandthe review of Islamic law on issue of Facebook's live stream according to Shariah principle. To achieve objectives. The initial standardized based on Thailand, Malaysia, and Indonesia so that the Shariah learning objectives can be amended and improve their skill accordingly [19]. Moreover, for a better understand of realistic purpose and conformity to Islamic law (Shariah) for global diversification of Facebook's live stream. It is also to reconceptualized and recognized the advantage behind the doctrine of shariah learning objective for future business.

Except 1

Live streaming is where I stand in front of camera and say to people publicly. I think given the global role that Shariah concern nowadays, and the fact that most of those who using Shariah law. they are solely base the learning target of Shariah teaching to streamer. The different Islamic perspective are practically failure when look at people who are taken Shariah law in their daily life.

Except 2

With a majority of Muslim people, context of live streamer. Learning goal of "How to teach the streamer" are need to be considered. Besides having basic education to streamers should also be provided to the varieties of advice within the background of Shariah that mainly follow the Islamic law. Whereas Islamic principle is taught and applied during live stream.

Shariah teaching materials

The most Facebook's live streamer prefer to study Islamic Shariah from fundamental to advance and effectively adopted for their daily life. In teaching skill should also discuss about religious contents and how to exercise successfully on issues in order to enhance the knowledge following religious principle.

Except 3

Basically, I studied a little religion. So, I didn't know the doctrine of sharia in online selling. But if I have any religious concerns, I ask my parents or the knowledgeable neighborhood. Some of which, when I asked and got the answer that would make me unable to sell So I choose not to follow through. Because it will make my product not sell.

Except 4

I thought it would be great if I used the Shariah principle. Because I will be able to sell stuff online with complete peace of mind. Do not be afraid of sin or the contempt of others. But I'm not sure if I really took the Shariah principle. Will my sales drop? Because as far as I know, Muslim women who are exposed in public must cover their faces. Wear loose shirts Only eyes and palm can be opened I am afraid that it will not sell as well as before.

Shariah curriculum contents

Since social media using Facebook's live stream play a crucial role in online digital marketing. What should be included and excluded from Facebook's live stream and what curriculum need to be revised, corrected and studied. In this regard [18] principle should be considered more practical when teaching Shariah principle in a context like Thailand, Malaysia, and Indonesia where Islamic law is used among Muslim communities as fundamental of Islamic knowledge to successfully encourage the Muslim for better understand the rule of law.

Except 5

In my opinion, we would become good and effective Shariah principle if the learning curriculum is a reflection of the discourse and practically expected to meet in our everyday interactions according to Shariah. The understanding on Islamic is more relevant to Shariah like people in Thailand.

Except 6

As for the streaming section, I try to relax my customers by neatly setting the shelves in the background while streaming add more lighting so that customers can see the product clearly, etc. I try to make my customers feel free by letting them ask for more information about the product and I try to make my customers feel good and in terms of the product, I will control the quality of the product by listing every Product Descriptions. Design your storefront while streaming to look attractive then the customers will be more confident in purchasing products.

According to this observation from some of the participants, the assessment of Facebook's live stream according Shariah indicated by the streamer may have the rightfully designed using their own skill. For some participant they may have opportunity to study and learn Shariah principle. They might can also ask their college to teach and provide knowledge to clearly understand.

CONCLUSION

Streaming platforms increasingly popular on social media and becoming one of the tools to reach the major target on digital business marketing. Since that the adoption of Facebook's live streams can expand the market price of the enterprise. As expressed by the participants they seem to embrace their own ideology comparing to Shariah principle. Due to target of digital marketing are expected to increase with high profits. The streamer are practically trended to promote their product to online consumer with high profit while concerning to shariah principle in particular. Furthermore, the future work is encourage the Islamic organization to build a framework or platform to train a new entrepreneur on digital marketing for Facebook's live stream and gains the best performance for their enterprice.

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The Integration of Soft Skills in English Language Teaching and Learning Through AL-ASPEM

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Abstract— The purposes of this research were to develop the undergraduate students' in three domains; the results of Language proficiency mainly in speaking and listening on project presentation, students' competency (soft skills) in the 21st century, and the satisfaction on Teaching and Learning by AL-ASPEM.

The AL-ASPEM is the integrated teaching process and developed under the Active learning (AL) and Problem-based learning (ASPEM) theories and principles. It focuses to develop students' language proficiency and the process of critical thinking during students' handling their project presentation. AL-ASPEM was implemented as English language teaching and learning with 94 students in University of Phayao, Thailand who registered in the 1st semester of 2020 for the 2 courses; English for specific purposes (ESP n=43) and English for communication (Eng.-Com n=51). Not only the English language proficiency especially in speaking and listening skills were developed and the soft skills (4CsMIT) refers 4Cs : critical thinking and problem-solving, creativity, communication and collaboration; in addition, MIT stands for media innovation and technology literacy could be enhanced.

Students' language proficiency was continually evaluated and graded by the 4 times of students' project presentation rubric scores as learning process through AL-ASPEM, and the quality of the products. While the 51.16% from ESP students' language proficiency was highest level and 48.83% was high level, the project quality was 100% excellent level. Otherwise, the 51 Eng.-Com students 78.43% was in highest level, 23.5% was in High level, and 1.9% was in moderate level of the learning process. But, the products quality showed that 50% was in the excellent level, and 50% was in good level.

Moreover, the correlation of students' competency (4CsMIT) in both the 21st century competency analysis and the developed critical thinking processes through AL-ASPEM found that in the high level in both groups of students; so that, ESP and Eng.-Com class had a positive correlated performance score. It tended to be significantly higher at the .01 level.

Finally, for the satisfaction on teaching and learning by AL-ASPEM was assessed under the unit contents, class activities, teaching aids, students project, and students' social skills. The results showed that all students form both ESP and Eng.-Com satisfied in high level. It tended to be significantly higher at the .01 level.

Index Terms— Soft Skills, Critical Thinking, Students' Competency in the 21st Century, English Active Learning, Integrated skills in English Language Teaching and Learning

I. INTRODUCTION

To develop the generation Z to live through a period of rapid change, an increasingly globalized environment, Innovation and technological advances, the researcher, as and English lecturer, constantly concerns about the changing of ways to communicate, work, and live together. For the further coming future, employers are agreed that the future workforce needs a basic set of professional skills and attitudes for long-term career success.

In the 21ˢᵗ century, the value of the 21ˢᵗ century education is the success which has been differently changed from the past. Driscoll (2016) [2] said the 21ˢᵗ century students are in the Generation Z – born between 1995 and 2009 – They are able to teach themselves about any topic they are interested in without even leaving their bedroom. These generations have grown up with advanced technology as a given in their homes and classrooms. They are digital natives. Not only these young students in our schools today are intelligent, independent and extremely capable, they are skilled with technology and comfortable with global and intercultural communication.

According to Canadian Chamber of Commerce (2014) [3], the soft skills are generally understood to include writing skills, oral communication skills, presentation skills, interpersonal skills, priority and goal setting, and lifelong

learning skills. Weiner (2000) [4] defined soft skills can be classified into two personal skills; inter personal refer to individual's ability in managing himself for optimally developing works; for example, time management, stress management and creative thinking. Meanwhile, inter personal skills are defined as individual's skills in managing their relationship with others for optimal work developments, i.e.: ability to motivate, to lead and to negotiate. Soft skills for recent graduates include leadership skills, critical thinking and problem solving skills, information management skills, and entrepreneurship skills (Kee, Ahmad, Ibrahim, & Nie, 2012) [5] .

The conference board of Office of the Higher Education Commission. (2006) [6] claims four soft kills as most critical for future workers are 1.professionalism / work ethic 2.Oral and written communications 3.Teamwork / collaboration and 4.criticalthinking/ problem solving. Hence, the researcher as the 21st century lecturer is extremely interested for developing the process of English teaching process to practice students not only English language proficiency, but also inquiring soft skills for supporting their ethical professional career.

The challenge for Thailand, how to transform teaching and learning emphasizing the development of student competencies and the application of learning and skills are the primary focus of education. According to the 2nd decade of Thailand Education Reform [7], the curriculum itself is required, as the curriculum framework sets the vision for education and guides the learning objectives and outcomes expected of all students in the country. The process of curriculum reform should therefore be one which defines and responds to the knowledge, skills, attitudes and values young people will need to thrive in the world, not just today, but in the years to come. In addition, leaning assessment is also be reformed hand in hand with the introduction of a new curriculum and pedagogical approaches. While the current high-stakes national examinations have not been designed with a competency-based lens, competency assessments should be measure student's competencies and abilities to apply learning and can also incorporate project work conducted throughout the each semester in the whole year of education.

So that, the shift of teachers' role in this era teaching is to completely change from giving students all the knowledge and information to be supporting students as they make their own steps of enquiry knowledge in different fields. For preparing learning sources make sure that they have the skills to endeavor and totally get through it. Teaching and learning should help students along the way as they build confidence to achieve. This means teachers need to be forward-thinking, curious and flexible. Teachers

must be learners: learning new ways of teaching, and learning alongside their students.

According to the Framework for 21st Century Learning, the Partnership for 21st Century Skills [8] indicates the core subject are English, reading or language arts, world languages, arts, mathematics, economics, science, geography, history, government and civics (Core Subjects). The necessary learning and innovation skills; such as, critical thinking, problem solving, communication and collaboration should be integrated into the teaching of core academic subjects. Moreover, Information, Media and Technology Skills which assists students to ascertain and update their worldwide information that their need to be acquired.

However, Higher Education, National Qualifications Framework for Higher Education in Thailand (2006) and also Thai Qualifications Framework for Higher Education (TQF: HEd) [9] indicates the domains of Learning for higher education. The domains are: 1) Ethical and Moral Development: Development of Habits of acting ethically and responsibly in personal and public life in ways that are consistent with high moral standards. And the Ability to resolve value conflicts through application of a consistent system of values. 2) Knowledge: the ability to understand, recall and present information including : Knowledge of specific facts, knowledge of concepts, principles and theories and knowledge of procedures. 3) Cognitive skills: the ability to apply knowledge and understanding of concepts, principles, theories and procedures when asked to do so; and Analyze situations and apply conceptual understanding of principles and theories in critical thinking and creative problem solving when faced with unanticipated new situations. 4) Interpersonal skills and Responsibility: the ability to work effectively in groups, and exercise leadership, accept personal and social responsibility, and plan and take responsibility for their own learning, and
5) Analytical and Communication skills: the ability to use basic mathematical and statistical techniques, communicate effectively in oral and written form, and use information and communications technology.

There are various terms used to describe active learning (AL) and these include AL is student- centered learning, collaborative learning (team, peer or group learning), engaged learning, and participatory learning. In terms of Haack (2008) [10], AL is generally as student - centered approach of learning. Significantly, students should be self-regulated and have an active role in decision making process while they are engaging in cognitively challenging academic tasks. Moreover, AL enhances the quality of student learning by creating meaning rather than memorizing information transmitted by the teacher. As in language assessment according to student- centered

approaches, modes of assessment are to encourage the development of all four language skills (reading, writing, speaking and listening) and other alternatively to evaluate higher-order thinking skills as part of lifelong learning. Bonwell and Eison (1991)[11] defines strategies that promote AL as "instructional activities involving students in doing things and thinking about what they are doing". Moreover, students involved in higher-order thinking (analysis, synthesis, and evaluation), and greater emphasis is placed on exploration of their own attitudes and values. Cambridge Assessment International Education (2019) [12] informs that AL is an approach where learners participate in the learning process by building knowledge and understanding. It based on a theory of learning called constructivism, which emphasizes the fact that learners construct or build their understanding. AL builds both knowledge and understanding which students can then apply to new contexts and problems, and fosters students' learning and their autonomy, giving them greater involvement and control over their learning and giving them skills of life-long learning. Students are developed higher-order thinking skills to achieve high grades cause by AL approaches. New coming study have shown, AL is an approach encouraging a life long learning process and help students with their cognitive skills and soft skills (Demirci, 2017). [13] The soft skills encourage critical thinking, problem- solving and task based learning skills in an active AL environment. Some of the key themes identified in active learning were. Not only students involved in class activities more than listening but reading, discussing, or writing were significant roles.

Consequently, for the researcher AL is an approach that provides meaningful learning and learning how to learn. It gives students' opportunity to speak, listen, read, write and think. The content of the lesson is learned through activities, which have students practice the knowledge, such as problem solving, informal buzz groups, simulations, case studies, drama etc. For English class, active learning need to develop students' English skills and transmit require information from student's reading, discussing, writing—that requires higher-order thinking. They also tend to place some emphasis on students' explorations of their own attitudes and values.

In order to achieve the target of learning Domain (HEd) and develop students' knowledge and the 21st century skills (soft skills) as mentioned before. Moreover, as benefits for students' competency to work in their future career, the researcher would like to develop the process of active English language teaching and learning based on the applying active learning and problem-based learning as "AL-ASPEM". The developed AL-ASPEM as the process of English teaching process could help students to develop their learning and innovation Skills: (4Cs: Critical thinking

and problem solving, Creatively and innovation, Communication and Collaboration) which are mainly essential four soft skills, and Information, Media & Technology Skills (MIT) as "4CsMIT" as the 21st century competency could be develop in English language classroom.

II. RESEARCH OBJECTIVES

The objectives of this research article were 1) to develop undergraduate students' competencies in the 21st century (soft skills: 4CsMIT) 2) to achieve in their English language proficiency and 3) to study the satisfaction of students who study with AL-ASPEM

III. RESEARCH METHODS

A. Research Design

The quantitative experimental research were used for implementing AL-ASPEM to find 3 domains, mentioned three objectives, with students who registered for 2 courses 146200 English for Specific Purposes (ESP) and 146131 English for Communication (Eng.-Com) in the 1st semester of 2020 academic year, University of Phayao. Students who enrolled were evaluated by the course evaluation, to be graded for the English proficiency and only two parts of the course evaluation were counted for assessing students' soft skills (4CsMIT) as the 21st century competency, which were project progress presentation (speaking and listening) and project, as the outcome of implementing AL-ASPEM (objective1). For the objective 2 , not only speaking and listening performance but also two tests were used as mid-term and final summative assessment focusing on reading and writing ability. Consequently, the questionnaire as the tool of gathering data of satisfaction survey was use to figure out the admiration of the students who leant with AL-ASPEM (objective3)

For research instruments, the data collected tools of the soft skills (4Cs and MIT) as the 21st century competency were checklist consisted of

1) The checklist of common thinking competency used to assess before and after learning with the AL-ASPEM

2) The checklist of initiated thinking process used to assess the launched critical thinking while learning with AL-ASPEM

3) The checklist of the 21st century competency to assess the launched competency after learning with AL-ASPEM

While, English language proficiency were 4 skills assessing which could be identified by theses research tool;

5) The Mid-term and Final Examination to assess student's reading and writing ability

6) The project progress presentation (process scoring) and Project (product scoring) which was be in line of the 4CsMIT rating for assessing students' speaking and listening performance

Finally, to gather students' satisfaction of learning with AL-ASPEM, the satisfaction survey was used.

7) The satisfaction survey of the implementation AL-ASPEM as active English teaching and learning

However, before conducting all research tools for checking the quality of research tools, all the experimental research tools; the English speaking rubric score, mid-term and final tests , the collected data tools; the 3 checklists, an questionnaire were checked by the 6 experts by the Index of Item objective, congruence (content validity). Considerably, data analysis were analyzed by Descriptive statistics; Mean, Percentage, S.D. and Pearson's correlation coefficient

B. Research Process

Research process of this research has developed into 7 steps consisted of 1) to study for review literature and related research, 2) design for experimental tools, 3) to check for the tools quality, 4) to conduct AL-ASPEM analyze, 5) to correct data, 6) to analyze data and 7) to do the research report. All steps were shown in Fig.1
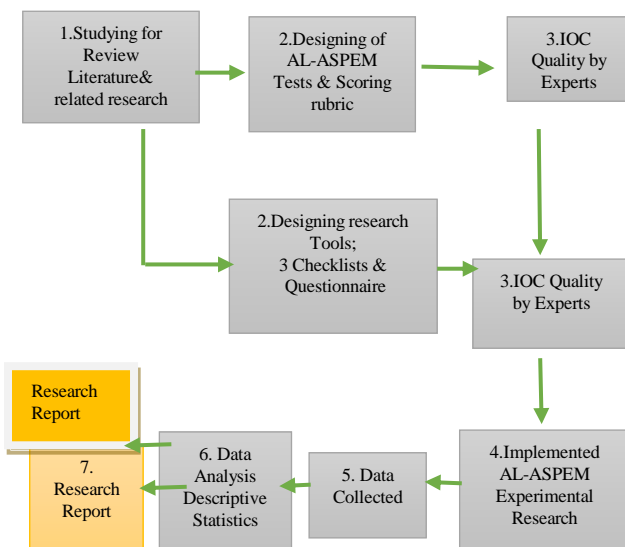
Fig.1 Research process for the Integration of Soft Skills in English Language Teaching and Learning through AL-ASPEM

AL-ASPEM as teaching process innovation developed under the theories and principles of AL and PBL. It can be indicated as the table below;

AL-ASPEM (Concept Defining)	Expected Soft Skills (4CsMIT) in the 21st century	
	Leaning and Innovation Skills (4Cs)	**Information, Media & Technology Skills (MIT)**
Stage 1: Analyzing: Identify and Classify what they know or don't know	Critical Thinking	Information Literacy+ Media Literacy
Stage 2: Synthesizing: Rearrange all concepts from the providing text	Critical Thinking	Information Literacy+ Media Literacy
Stage 3: Problems Solving: Inquiry for Solving PBL: Clarifying unfamiliar terms, Rules, and Concept and set the issues of further study (new knowledge and skills)	Creativity and Innovation	Information Literacy+ Media Literacy
AL-ASPEM (Concept Defining)	**Expected Soft Skills (4CsMIT) in the 21st century**	
	Leaning and Innovation Skills (4Cs)	**Information, Media & Technology Skills (MIT)**
Stage 4: Evaluation and Making Decision: Sharing Results and Presentation of Fomulating learning issues (new knowledge and skills which can help to design contents of project progress and project)	Communication	Information, Communications and Technology, Literacy
Stage 5: Making Resolution: Presenting the project and project progress	Communication and Collaboration	Information, Communications and Technology, Literacy

Table1: The 5 stages of AL-ASPEM promoting language proficiency and 4CsMIT

IV. RESULTS

To implementation AL-ASPEM the active English teaching and learning in English class, the undergraduate students are able to…

1) To develop undergraduate students' soft skills (the competency in the 21st century), there was 3 checklist to analyze as below,

1.1 The checklist of initiated thinking process used to assess the launched critical thinking while learning with AL-ASPEM

This checklist was used to analyze the critical thinking occurred by implementation through out the 5 steps of AL-ASPEM in class while students doing activities and doing project. The essential critical thinking process by 5 steps systematically: 1. 7 items of analyzing 2. 6 items of synthesizing 3. 13 items of critical thinking 4. 6 items of creativity. The results of collected data were as below,

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Critical thinking	ESP			ENG.-Com		
	Mean	S.D.	Level	Mean	S.D.	Level
Step 1: Analyzing	3.69	0.73	high	3.48	0.70	moderate
Step 2: Synthesizing	3.77	0.75	high	3.72	0.74	high
Step 3: Critical thinking	3.77	0.75	high	3.47	0.72	moderate
Step 4: Critical thinking	3.91	0.84	high	3.60	0.82	high
Step 5: Creativity	3.85	0.72	high	3.46	0.71	moderate
Total	**3.75**	**0.77**	**high**	**3.54**	**0.74**	**high**

Table2: The level of 4Cs after studying each step with AL-ASPEM

As can been seen that the ESP students' critical thinking were high level which different from Eng.-com students, that was 2 times of project progresses and projects were perform while Eng.-com students was only one times assessed. It would assume that more times practicing, more student's progress and development in English proficiency, and absolutely for more developing critical thinking skills.

1.2 The checklist of the 21st century competency (soft skills) to assess the launched competency after learning with AL-ASPEM

The students' expected 21st competency would be develop while learning with Al-ASPEM were 5 items of communication, 5 items of thinking critically, 5 items of problem- solving skills, 5 items of life skills, and 5 items of media and technology skills.

Table3: The level of 4CsMIT from project presentation and project after studying with AL-ASPEM

Throughout the project progress and the final presentation of the project, students from both classes work hard for developing their project. The best project would be the best model for another to develop their tasks. ESP program did two times, but Eng.-Com did only one time. From the table 2, it could criticize that students assessed themselves in moderate level, they tended to need time to develop more.

However, to analyze with Pearson's correlation coefficient, both group of students tended to be in positive level in both the initiated critical thinking process and the students' expected 21st competency (soft skills) while learning with AL-ASPEM showing by the analyzing from table3 below,

The Correlation among	Group	Mean	S.D.	r_{xy}
The students' expected 21st competency (soft skills)	ESP	2.26	0.60	0.753**
	Eng-Com	2.08	0.60	
The initiated critical thinking process	ESP	3.75	0.77	0.825**
	Eng-Com	3.54	0.74	

** significant 0.01

Table4: The correlation among the 4CsMIT (students' expected 21st competency) and the initiated critical thinking process from studying with AL-ASPEM

2) To achieve in their English language proficiency.

According to the course syllabus and course evaluation, ESP subject which was handled by the researcher oneself; while Eng.-Com were team teaching. However, the formats of the course assessment tasks were divided into 1) the project progress presentation and project (No. 1, 2,and 3) used to assess speaking and listening performance 2) the tests: mid-term and final examination used to assess students' reading and writing ability. However, the consistent of course valuation was in line of the formats of research objectives assessment as the Fig.2 below,
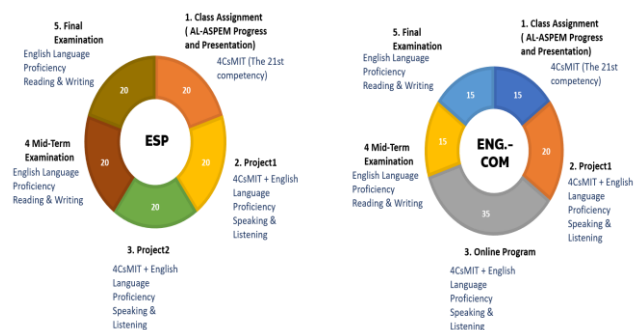
Fig.2 The percentage of course evaluation tasks on English

The students' expected 21st competency (Soft Skills)	ESP			Eng.-Com		
	Mean	S.D.	Level	Mean	S.D.	Level
Communication	2.17	0.58	moderate	2.09	0.61	moderate
Thinking critically	2.23	0.61	moderate	1.99	0.53	moderate
Problem- solving skills	2.23	0.61	moderate	2.23	0.72	moderate
Life skills	2.17	0.52	moderate	2.05	0.51	moderate
Media and technology skills	2.24	0.65	moderate	2.06	0.66	moderate
Total	**2.24**	**0.6**	**moderate**	**2.08**	**0.60**	**moderate**

language proficiency and 4CsMIT (the 21st century competency) in both courses: ESP and Eng.-Com

As a results of course grading 9 (A, B+, B, C+, C, D+, F), it could be inferred that score of the project progress presentation and the project grading supported students achieve in the high grading which were A, B+, B. Both kinds of assessment (No.1, 2 and 3 in Fig.2) indicatned that the integrated AL-ASPEM supported ESP (n=43) group acquired gained high grading 74.41%, when Eng.-Com (n=51) obtained 78.43% and all students (n=94) achieved 76.59%.

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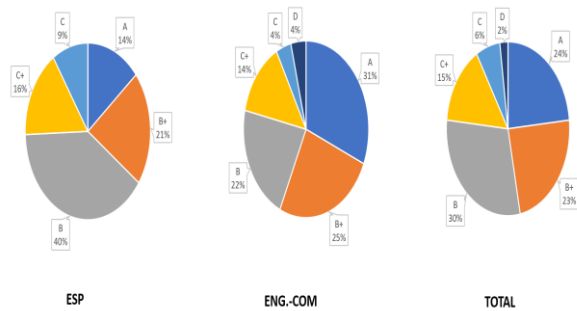
Fig.3 The percentage of course evaluation grading in both courses: ESP and Eng.-Com

Moreover, in the detailed criticizing consideration of the project progress presentation (process scoring) and project (project scoring), both process and product referred to students' speaking performance and project quality. It could explain that from the interval scales according to the rubric criteria the excellent and good level of process and product performed by both ESP and Eng.-Com, while the product were totally excellent from ESP, the Eng.-Com were in excellent and good level by the Fig. 4 below,
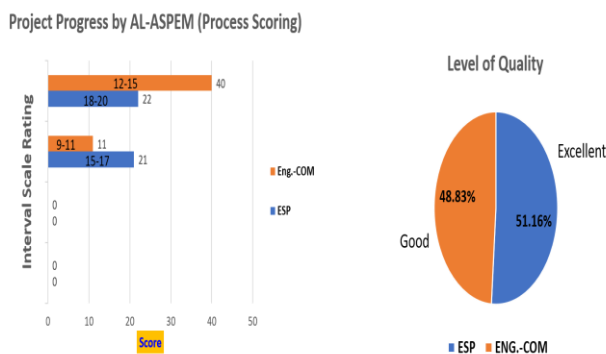
Fig.4 The interval scales of the level of students' score from project progress presentation and project in both courses: ESP and Eng.-Com

3) To study the satisfaction of students who study with AL-ASPEM

The satisfaction survey is the 35 items of questionnaire, which detailed in 5 topics of the AL-ASPEM implementation: the 6 items of unit contents, 13 items of class activities which shift from class activities to completely online class, 9 items of teaching materials and students project and the 7 items of social skills.

The satisfaction of Learning with AL-ASPEM	ESP			Eng.-Com		
	Mean	S.D.	Level	Mean	S.D.	Level
1. Unit contents	3.87	0.65	high	3.90	0.70	high
2.Class activities	3.72	0.75	high	3.76	0.85	high
(online teaching and learning)						
3.Teaching materials and student's project	3.95	0.60	high	3.85	0.61	high
4.Social skills	4.25	0.78	high	4.09	0.76	high
Total	**3.91**	**0.72**	**high**	**3.88**	**0.77**	**high**

Table5: The satisfaction of learning with AL-ASPEM

Although the paradigm has been changed since the beginning of 2020, Education, teaching and learning have progressed for learner themselves 4 knowledge, cognitive skills, interpersonal skills and responsibility, analytical and Communication skills (Higher Education, National Qualifications Framework for Higher Education in Thailand

(HEd:2006) and also Thai Qualifications Framework for Higher Education (TQF). So that, as students admiration of AL-ASPEM in high level, the conducting of AL-ASPEM in University of Phayao would help students develop 4 from 5 domains of learning for higher education level.

VI. RECOMMENDATIONS

A. Recommendations for Practices

From the results of data analyzing and according to AL-ASPEM, the researcher convince that in terms of integration of "4Cs" as students' learning and innovation concluded with information and media technology are coincided throughout the process of AL- ASPEM. The 4CsMIT (soft skills) is prominently integrated and revised across all curriculum mapping and strategic planning. While, the first "C" as Critical thinking is about analyzing information and critiquing claims. The later "C": Communication is well enough to understand things and share clearly with other members in a group. The next third "C", Collaboration is about teamwork and the collective information, idea and opinion of a group to sum up what they have required and learned. For the last "C", Creativity is about thinking through information in new ways, making new connections and coming up with innovative solutions to problems. These skills are often referred to as transferrable skills as they can be used in different scenarios and across different domains, reflecting the growing trend that students will move across and between different areas of work during their careers where their ability to transfer skill-sets to meet new challenges will be tested.

Although the perform of conducting of AL-ASPEM was successful because of the researcher conducted from two classes of 2 courses in the same semester of academic year; moreover, the differences of two times showed the effectiveness results rather than once. However, researcher would like to see more about the progress of students' self-directed learning. While students were struggling to be successful on project, are they recorded their self- reflection or self-esteem on their learning. Despite they were success

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on their tasks and the course, students themselves were happy to learn by doing or do they felt depress or stress on doing projects. If the process of AL-ASPEM could help students to criticize themselves on their progress and language learning, it would be support students to learn with happiness for a life- long learning person.

B. Recommendations for Further Research

For the next research, AL-ASPEM as an integrated teaching innovation to enhance 4CsMIT; consequently, the researcher would like to recommend this active English teaching and learning process in another subject field or level of education because of its integrated another skills (4CsMIT). Nevertheless, the researcher would like to use AL-ASPEM for further research on

1. AL-ASPEM could use for developing student's growth mindset.

2. AL-ASPEM could use for developing the another subjects or English curriculum

3. AL-ASPEM could use for promoting on teaching profession.

CONCLUSION

In conclusion, after practicing for a period of 4 months, the findings from the analysis of both quantitative showed that the development in the 21st century (soft skills) were in high level in both students from two courses. Both group of students tended to be in positive level in both the initiated critical thinking process and the students' expected 21st competency while learning with AL-ASPEM. While, the level of critical thinking was developed, the 4CsMIT as the outcome from project presentation and project after studying with AL-ASPEM were moderate level form their own assessment. Nevertheless, students satisfied to learn and do the project in high level. The satisfaction toward AL-ASPEM were in high level.

Normally, the achievement on English language focuses on language ability (knowledge) and performance (skills), and the tests usually use to assess language ability. The process of AL-ASPEM which focused on the ability to present the project progress in English; in addition, the quality of using technology and program such as making video clip presentation were combined for creative English presentation performance and the quality of the project itself. For this research, tests was used to assess reading and writing skills, while speaking and listening were assessed by language presentation with students' performing by themselves. As the course evaluation, students preformed 76.59% for B, B+ and A grading, and 21.27% for C, and C+ level. Only 2.12% performed in D level. As a result, AL-ASPEM could enhance in all four skills language

proficiency. Interestingly, as for integrated critical thinking skills and MIT skills could promote students in English course systematically which presented by the project progress presentation and the quality of the delivered projects.

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Model ofLearning Activities for Improving Life Quality ofthe Elderly Using Elderly School as Base

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Abstract

This research has the objective to analyze the learning activities and format of the activities to develop life quality of the Elderly using school as base. This is intended to collect data from in-depth interviews, discussions as well as observation and field reporting to analyze data content oriented and descriptive from actual occurrences. Results of the survey finds that learning activities to develop life quality of the Elderly adopts for consideration the following: 1) background of the school for the Elderly, 2) objective of knowledge management, 3) content or course outline to teach within the school for the Elderly, 4) format, process and method of knowledge management, 5) evaluation or monitoring regarding the format of activities for knowledge which finds that there are 2 characteristics namely 1. format of activities for knowledge management in the form of institution with course and syllabus, and 2. format of activities for knowledge management in the form of rural which select the attendees while the form of teaching is showing to set as sample to follow.

Keywords: Learning Activities, Quality of Life ofthe Elderly, the Elderly School

1. Introduction

"Elderly Schools" is another form that realizes the value, importance and power of elderly people through the role of rural and community taking part in managing for the elderly people to have crucial knowledge and understanding to maintain life (Naewna Online, 2019) [1] as well as promote lifelong learning, development of skill and improve the life of the elderly to be Active Aging together with improving the elderly's life quality, both as individual and social. It is hoped for happiness to improve both at soul and in the heart with the feeling of security in life and feeling being a part of the society. This is an option to prepare for readiness as we fully enter into the elderly society since Elderly Schools will help the elderly open the opportunity to learn and take art in activities with the community along with opening the chance for elderly people to meet and talk, exchange experiences, share know-how accompanied by improving oneself in every way. With this, the elderly people will see the value within oneself, arise self-pride, reduce burden of the society and further increase social energy. (Department of Elderly Affairs, 2017) [2]

Presently, there are a variety of Elderly Schools in terms of location, system of education and methods or activities. Hence, it all depends on the condition of the area and the demand of the elderly people as well as the sponsoring state agency. According to the result of educational studies and various offices, it was found that Elderly Schools are educational institutions or agency or community that arranges activities to develop elderly people through systematic transfer of knowledge which elderly people learn with entertainment. Elderly people who become students through schools are developed with

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skill in taking care of oneself, controlling oneself and are able to depend on oneself (SasipatYodpetch, Pawana Patanasri and ThanikarnSakdaporn, 2017). [3] On top of Elderly Schools playing an important role in developing elderly people's life quality, local community is also the major source to support lifetime learning and is the area to interact in social and promote self-value to the elderly people in parallel with being the presence for well-being to perform activities in healthcare, polishing skills, using technology, participating in recreational activities as well as seeking various knowledge (PinwadeeSrisupun, Suree Thamikbaworn and SurasomKrisanajutha, 2017). [4]

From the mentioned, Research is interested in further studying about the format of activities in learning for development of Elderly People's life quality using Elderly Schools as base. However, to further explore about learning activities and the system of learning activities on how to improve Elderly People's life quality, this research paper will introduce areas in the society for Elderly People to perform and pull out highest capabilities out of the Elderly People for best benefits to both the individual elderly person and to the society as a whole. This is so that Elderly People will be able to take care of themselves at old age with quality and be able to progress into developing positive behavior within the elderly person to consist of good health, take part in the society and have assurance that is solid and sustainable including being beneficial to personnel relating to further improving life quality of Elderly People.

2. Literature Review

Elderly Schools is one of the ideas to promote effective lifetime learning process for Elderly People so they can learn and improve their skills in taking care of themselves which will lead to improve the quality of life of Elderly People. This is based on the principle that Elderly People are worthy and capable and should be promoted to take part in benefitting the society as well as promoting knowledge that links to past experiences of the Elderly People. The core of knowledge must be that which the Elderly People deem useful to be brought to apply is their present everyday living(Department of Elderly Affairs, 2017) [2] Therefore, the principle of knowledge management for Elderly People is fulfilling the compulsory need and requirement of knowledge, yet, to satisfy the need to know and see and the urge to do activities to exchange interest with other members. Generally, this is knowledge outside the system that is planned knowledge joined amongst Elderly People together with the organizer. Generally, there are many systems and methods that varies differently according to the demands of the Elderly People and the process of managing learning activities which should be based on the foundation of (1) background, (2) purpose of learning, (3) content of knowledge, (4) system or method of learning, and (5) evaluation or results that may occur. Moreover, knowledge management for Elderly People should also consider the demands, experience and nature of learning the Elderly People as well as the importance and creation of learning atmosphere (Suchada Jukpisut et all, 2005) [5] and (Archaya Ratana-ubol, 2019). [6] For that reason, knowledge management for Elderly People must consider the need and quality of life in all dimensions of the society as well as appropriate assurance and security upon depending on oneself (National Elderly Committee, Ministry of Social Development and Human Security, 2010) [7]. Research Paper of (PinwadeeSrisupun, Suree Thamikbaworn and SurasomKrisanajutha, 2017). [8] stated that development of life quality for Elderly People in the community through Elderly Schools found that Elderly Schools has an important role in developing life quality and is the source of support for life-time learning as well as being the grounds for social interaction, promote value for Elderly People and is the area for happiness through activities to take care of the health, practice skill for profession, apply technology, be involved in recreation activities as well as seek for other knowledge. At the same time, SasipatYodpetch, Pawana Patanasri and ThanikarnSakdaporn(2017). [3] mentioned that Elderly Schools have the

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characteristics of activities that institutions or communities form up to develop the capabilities of Elderly People through systematic transfer of knowledge with happiness and delight. Students who go to Elderly Schools will improve in skill of taking care of oneself, self-control and become more dependent on oneself. Office of the Education Council, Ministry of Education (2018) [9] elaborated the design of activities for learning must consider about development of life quality of Elderly People in 4 dimensions namely body, spirit, wisdom and social and reflect on the type of problem and the need of Elderly People in each area which may differ in terms of way of living, income, health, background, education and work. In summary, Elderly Schools is one of the institutions which have an important role in developing the quality of life of Elderly People as well as being another source for life-time learning which arranges knowledge to fulfill the need for more knowledge and have involvement to improve the 4 dimensions namely body, spirit, wisdom and social.

3. Method

This research is done in the form of Qualitative Research using Case Studies that focus on in-depth and understanding of actual happenings (Christensen, L.B.,Johnson, R.B., Turner, L.A., 2015)[10] of the Elderly People group participating in learning activities of the School for Elderly People in the areas of Suphanburi, Kanchanaburi and Bangkok provinces since there are model of learning activities namely School for Elderly People at TambolPlubplachai at AmphurUthong, Suphanburi province, School for Elderly People at TambolNonglan at Amphur Tamaka, Kanchaburi province and School for Elderly People at Yannawa District of Bangkok Metropolitan. All these 3 School for Elderly People are Paradigmatic Case that reflect the learning activities, acceptance in social or community as well as prize winning and certificate issuance for various areas from sources of learning that has offices who come

to constantly observe. This is the reason why these 3 schools are being selected as models for this research as well as being reachable and research can be performed continuously.

As for proceedings, work is done in 2 stages namely the first stage is In-depth interview relating to learning activities for development of life quality of Elderly People using Elderly School as base. Here, 15 people is selected as Purposive Sampling that consists of staffs that are involved in the School for Elderly People and students who are elderly people that comes to participate in the learning activities of the school. Second stage is Focus Group Discussion relating to the learning activities for development of life quality of Elderly People which is seeking for details to summarize the learning and format of activities that is correct and corresponds with the representative of the elderly people and related personals, totaling 12 people namely staffs of the School for Elderly People, Head of community and relatives of the elderly people that have been selected for surveying and take part in this group discussion. As for analysis of data, analysis is done in the form of context and uses the method of Strauss and Corbin (1990)[11]together with report in the table format (Miles and Huberman, 1994) [12]. Overall, the result is presented in a report format with wordings to emphasize each elaboration.

4. Results

Part 1: Analysis the learning activities for development of life quality of Elderly People using Elderly School as base, studies found that: Area No.1 Background of the school for the Elderly can be concluded that establishment of Elderly School derived from any original thoughts from the National Elderly Plan No., 2 (2002-2021), Amended No.1 (2009), where one idea that is alike is the promotion of lifetime learning process for Elderly People increase their capability to support their learning and skill development in taking care of themselves which in turn will also improve the quality of life of the Elderly Person, Area No.2 Objective of knowledge

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management in general found that promotion of knowledge management and development of oneself, protection and preserving right of Elderly People, promoting good health both for the body and spirit together with letting Elderly People create benefit to the community and society, Area No.3 Content or course outline to teach within the school for Elderly People finds that each school for the Elderly People operates in accordance with the manual to operate Elderly Schools. Therefore, course taught within the School for Elderly People have the objective for Elderly People to learn at their free-will, happiness, entertainment and stresses on development of various skills are required within the area, Area No.4 Format, process and method of knowledge management finds that Schools for elderly People are managed and administered in terms of learning in the form of a committee consisting of people within the community or area and some areas also consisting of external people as well. Mostly, Schools for Elderly People are established by state offices i.e.Tambol Administration Office and some schools are established by private offices or foundations so committee members vary from advisors to the Schools for Elderly People namely monks or related officers in the area, and Area No.5 Evaluation or monitoring regarding the format of activities for knowledge finds that there are similarities and difference depending on intentions of each area. Mostly, the vision and mission of Schools for Elderly People do not focus on evaluation or monitoring the results in theory but give importance to the outcome that could be observed empirically as the course determines and concentrates on actual knowing, actual performance and the ability to transfer knowledge. As for activities for learning to develop Elderly People usually comes in courses i.e.course in academic, rights and law, health and profession or way of living and changing society. Hence, some schools also contain course that are easy to remember and have activities in areas of 1) What Elderly People must know, 2) What Elderly People should know and 3) What Elderly People want to know, all of which depends on the context

of the area and administration and manage of each school.

Part 2: Format of activities for development of life quality of Elderly People using Elderly School as base, studies found that arranging the process for learning in individual School for Elderly People have different focus depending on the area where they are located. Each school is derived from the same basis of H-T-S (Home-Temple-School). Apart from this, the main emphasis is managing the system for learning to be in the format with students and with teachers or inviting those with knowledge to give knowledge or demonstrate or become joint teachers with attendants being checked, hours of attendants being collected and collected data becoming part of the evaluation and monitoring results after learning. As for the activities for learning of each School for Elderly People, mostly give emphasis to development of life quality of Elderly People under the concept of developing life quality for the body, spirit, social and wisdom. There are 2 characteristicsfor activities of learning, namely 1. Format of activities for knowledge management in the form of institution with course and syllabus where teachers or instructors come from the network within the area or community through live telecast or teach through other means of teaching for activities that involve teaching to villagers or activities that require show-to-do be become sample to follow i.e. activities to develop a career and increase income, activities involving personal happiness or knowledge regarding savings, knowledge about food, making herbs and agriculture. It is further known that activities for learning has the following formats of (1) format for learning on the grounds of things required to know to maintain life and world society at present, (2) format for learning on the grounds of benefits, protection and rights as Thai citizens, and (3) format for learning on the grounds of general knowledge required to know or wanting to know knowledge based on learner's requirements or knowledge on way of life of the learner or knowledge on local culture. As

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for evaluation and monitoring for Schools for Elderly People is different i.e.some stress on hours of class attending since they wish to focus on discipline and self-training to have responsibility in being involved the various learning activities as determined by the School for Elderly People. Furthermore, testing and measurement of knowledge is not found with students of Schools for Elderly People since there is no necessity and does not correspond with the intention to establish Schools for Elderly People in each area. Yet, another problem regarding activities for elderly learning is found in 2 aspects namely (1) internal factors i.e.the problem of the method that brings about the activities for learning that does not link between the context or knowledge with the vision and mission of the school and (2) external factors i.e. the lack of support from agencies that have direct role for continuous care like the educational or career development offices.

5. Conclusion

Learning activities for development of life quality of Elderly People using Elderly School as base corresponds with the intention to establish Schools for Elderly People (National Elderly Persons Committee, Ministry of Social Development and Human Security, 2010) [7] that gives importance to living life and knowing and seeing the value of oneself. Here, foundation to support the learning activities and improving the life quality of Elderly People on the basis of involvement with local community and allied network. Further results finds that it corresponds with PinwadeeSrisupun, Suree Thamikbaworn and SurasomKrisanajutha, 2017). [8] that School for Elderly People take an important role in developing the quality of life of Elderly People in the community in addition to being the source to promote life-time learning, being the area to interact in society, support giving value to elderly people and is the grounds for happiness as well as performing activities relating to taking care of the health, skill practice, using technology, do recreational activities in addition to seeking for various other knowledge. Nevertheless, because every

School for Elderly People have a role and target to clearly improve life quality, all activities have been designed to correspond to the demands of the elderly people with network in the area and Home-Temple-School (H-T-S) backing up. Activities mainly are in the form of institution determined courses and local/learner demand courses in accordance with the present intention of establishment of each School for Elderly People.

As for the format of the Learning activities for development of life quality of Elderly People using Elderly School as base matches to SasipatYodpetch, Pawana Patanasri and ThanikarnSakdaporn(2017). [3] that Schools for Elderly People have the characteristics of activities that institutions or communities form up to develop the capabilities of Elderly People through systematic transfer of knowledge. Upon considering the details of the activities, it was found that the success factor for Schools for Elderly People consist of (1) the elderly people group, (2) administration and management, (3) learning activities and (4) network for development, which is in parallel to the principle of good promotion to effective life-time learning activity for elderly people for elderly people to have knowledge and be able to develop themselves under the care of the Department of Elderly Affairs. Based on the manual for Schools for Elderly People (2016), the key elements to successful operation of Schools for Elderly People are leadership, target and activities, participation, social network, continuous learning and development process and support from the state. Yet, each Schools for Elderly People being selected as model case study each have their success and can attain to be model of Schools for Elderly People when considering the related factors.

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A Model of High Efficient Academic Administration for Phrapariyatidhamma School

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Abstract— The purposes of this research were 1) to study the state of area, high efficient academic administration of Phrapariyattidhamma school, 2) to develop and propose the high efficient academic administration of Phrapariyattidhamma school. The mixed research methods; quantitative research and quantitative research were used and research tools were interview form and questionnaires. Results indicated that 1) the status of academic administration in Phrapariyattidhamma schools, was at a high appropriate level in 5 aspects. 2) In development of high efficient academic administration, personnel consisting of administrators, teachers, staffs and student must be developed in 6 aspects: 1) The curriculum must be continuously adjusted according to community contexts. 2) A new body of knowledge must be created in teaching and learning system. 3) Media and instruments must be up-to-date and can be accessed unlimitedly. 4) Teachers and staffs must create teaching innovation and generate the knowledge to community. 5) Learning area must cover academic, career training and ways to live a life for every level of people. 6) Learning sources must support physical, mental, moral and ethical values of society. The form of high efficient academic administration consisted of 5 aspects in academic administration and 6 aspects of high efficient qualification as 5A 6Q Model.

Index Terms— High Efficient, Administration, Phrapariyattidhamma Schools.

I. INTRODUCTION

Educational management aims to develop people in the country to learn and keep pace with the changes of society and the world. Therefore, the ministry of education has a policy aimed at developing the people of the nation. To grow the whole body and the mind without socialization, and monks and novices, nuns are a group that must be developed in education to be effective. Have knowledge of both secular and religious traditions; and able to spread Buddhism to progress and also beneficial to the government, that is if a monk and a novice leave the Buddhist monkhood able to study in public educational institutions or being able to continue living in the practice of living that is beneficial to oneself and the country.

Therefore, Phrapariyattidhamma school department of General Education. It was established due to the establishment of Bali Secondary Education School and Bali Extraordinary Education of the two monastic universities, Mahachulalongkornrajavidyalaya University and Mahamakut Buddhist University which has been in operation since 1889 and 1946, respectively. Later, Mahachulalongkornrajavidyalaya organized a secondary education department called "Bali Secondary School" when the Bali Secondary School was widespread. The Sangha by the educational organization. Therefore, this type of school was called "Bali Extraordinary Education School for Students" by the Sangha. Then the Ministry of Education issued a regulation, the Ministry of Education since 1957. Study of the dharma the new Pali department was called "Pali for Ordinary and Periyat Education" and abolished the Sangkhamor Regulations on Education of the Pali Extraordinary Education for students. Later considered that Secular education thrives advance more according to the

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changing conditions of the world. Therefore, to see that there should be a school General Education Department in order for the students to practice themselves for both secular and moral benefits at the same time. Therefore, it has a regulation of the Ministry of Education on Phrapariyatidhamma School Department of General Education on July 20, B.E.2514, supports and regulations of the Ministry of Education on Phrapariyatidhamma School Department of General Education, Year 1992.

According to the Ministry of Education Regulations on Phrapariyatidhamma School Department of General Education Year B.E.2535 stipulated that the school Phrapariyatidharma Department of General Education refers to schools established in the temple. Or at the monk or the land of the Buddhist Foundation to educate monks and novices according to the curriculum of the Ministry of Education for Phrapariyatidhamma School, The Department of Education can be established only with permission from the Ministry of Education. And with the approval of the President of the Sangha Education Council. The school must provide instruction according to the Ministry's curriculum Education by the National Buddhism Office will provide support as a subsidy according to the budget and in accordance with the criteria set by the Educational Committee of Phrapariyattidhamma School Department of General Education.

Therefore, Phrapariyattidhamma School Department of General Education is the provision of basic education. Which is a systematic study along with the management of dhamma education in both the Pali and dhamma departments for monks and novices. By accepting boys who graduated from grade 6 and ordained as a monk novice to continue their secondary education Phrapariyattidhamma School. The General Education Department was established by a Buddhist temple. There is a temple abbot who requested the establishment conducted by teachers who are both monks and laymen.

From the background study it was found that the establishment of the Phrapariyattidhamma School Department of General Education. It was established from the cooperation between the Sangha Association and the Ministry of Education for the development of educational quality of the novice monks to have knowledge and experience that are in line with the changes of society and modern science to make the learner a successor to Buddhism or a quality population of society and provides opportunities for economically and socially disadvantaged children such as families to live in poor rural areas. There are no funds to study. Residing in a remote area of prosperity unable to attend normal public school. Give the children of those people the opportunity to come to study to develop knowledge to develop social status and to be good in society.

However, the status quo of the management of Dhamma education Department of General Education, there are many important development issues. Issues of quality and standards in the present education of Phrapariyattidhamma School Department of general education that is not yet recognized by the broader society. The ambiguity in the identity of the educational arrangement is truly consistent with the context it should be. The efficiency of the system of administration and education management that has not yet developed direction and lack of clarity in building administrative unity of school groups and provincial Buddhist offices. It was also found that the creation of covenants, operations and the provision of education for the creation of a coherent heiress was not set to be concrete.

Administration of Phrapariyattidhamma School the general education department still encountered many problems and obstacles, namely the personnel side, it was found that there was a lack of qualified and qualified teachers. As for the building, there is also a school of Phrapariyattidhamma about half of the general education department does not have its own school building. Including the school administration problem is not as efficient as it should. And also found that Phrapariyattidhamma School the general education department has no permanent personnel. Teachers are only temporarily hired, which causes frequent switching problems. Low morale and morale the lack of teaching and learning equipment was not supported as expected. This was consistent with the research of Phra Anukul Worakan Phasukkamo found that the academic administration problem was at a moderate level. When considered individually, it was found that there were two criteria with high averages: school curriculum development was inconsistent with local communities. And the implementation of local curriculum in teaching and administration that is inconsistent with the core curriculum.

Teaching management at Phrapariyattidhamma School there is a decrease in the number of students enrolled. This could be caused by many reasons, such as monks and novices have more opportunities to attend other educational institutions, lack of motivation to attend. And those who attend the Phrapariyattidhamma School the general education department can take the competitive examinations to enter the educational institutions with a very small number of national voices, etc., which are all caused by inefficient academic administration problems. From such circumstances in order to provide academic management to meet the quality standards that will result in the education of the Buddha so effective it needs to be managed seriously and correctly according to the principles of academic administration. Both in the course the process of learning innovative media and technology for measurement and evaluation educational supervision.

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Including educational quality assurance which provides education in various fields. These are all ways to develop high-performance academic work for Phrapariyattidhamma School to grow with quality and meet more standards.

From its primary importance this makes the researcher interested in studying a high-performance educational institution administration model for Phrapariyattidhamma School. To guide the framework for the administration of Phra Pariyatidhamma School taking into account the opportunity to spread Buddhism and build a knowledgeable heir. The ability to manage the Phrapariyattidhamma school to keep up with the changes of society.

II. RESEARCH OBJECTIVES

The objectives of this research article were 1) to study the state of area, high efficient academic administration of Phrapariyattidhamma school, 2) to develop and propose the high efficient academic administration of Phrapariyatti dhamma school.

III. RESEARCH METHODS

The researcher conducted a mixed method research by analyzing data from review literature such as documents, textbooks, statistical data, research reports. Reports from various departments, academic articles, dissertations, as well as research related both domestically and internationally and in-depth interview formally. By interviewing the researcher to study the opinion of school administrators the target group is the case study, the researcher has determined the methodology, research methodology in the following steps.

Step 1: Study the state of area, high efficient academic administration of Phrapariyattidhamma school by 1) studying textbooks, academic papers, online media and related research, and 2) interviewing key informants in the form of 15 persons by purposive selection.

Step 2: Develop the high efficient academic administration of Phrapariyattidhamma school by focus group discussion 10 key informants / person with purposive selection.

Step 3. Examine and present the forms of the high efficient academic administration of Phrapariyattidhamma school. 1) checked by answering quantitative assessment forms. 2) edit, improve and present the form of the high efficient academic administration of Phrapariyattidhamma school.

IV. RESULTS

Document analysis results

The results of the analysis of documents regarding the circumstance/condition of the high efficient academic administration of Phrapariyattidhamma school. Can be summarized as follows

1. State of the 5 Phra Pariyatidhamma School Administration.

1.1 For the curriculum, it was found that the administrators and teachers summarized the results of the curriculum management continuously. Continuous monitoring and evaluation of course management. Create an educational institution curriculum from the core curriculum study.

1.2 On the learning process, it was found that the administrators and teachers emphasized the students to take action. Organize content and activities taking into account individual differences. Encourage learners to develop analytical thinking processes.

1.3 Innovation media and educational technology, it was found that administrators and teachers adopted modern technology improve technology materials to be ready for each academic year. Appropriate to the current social situation.

1.4 In terms of educational measurement and evaluation, it was found that administrators and teachers organized an information system for measuring and evaluating learning results up to date. Evaluate and evaluate the actual results of the learners' learning behavior. Establish clear rules and guidelines.

1.5 In terms of educational quality assurance, it was found that administrators and teachers developed a quality development plan for educational institutions. Schools pay attention to this matter. Appoint an operating committee.

2. The standard for promoting the organization to have high competency for the 6 Phrapriyattidam schools found that:

2.1 The Ability of the organization to change, including creating a new structure with an emphasis on the use of teams and organizations without borders. There is a greater loyalty to the organization. The organization has highly qualified and educated administrators and teachers.

2.2 The Creation of new knowledge widely, including allowing the learners to perform self-learning activities. Place the learner as the center of learning learners use technology as a tool for learning to seek answers from various knowledge sources themselves.

2.3 Organization without borders: administrators and teachers can fully utilize their potential. Administrators and teachers can work in diverse teams. The school has information on information technology to create organizations without borders.

2.4 To Motivate personnel to achieve high performance, schools have needs to motivate personnel to achieve high performance. Management looks at people from internal motivations based on their attitudes towards the school and their special interests. Schools have the temptation or goal to motivate people to achieve high results.

2.5 To be a great place to work: administrators and teachers organize classrooms and the building to learn. Together to work as a team happily Schools have the temptation or goal to motivate people to achieve high results. Administrators and teachers create a positive attitude towards teaching and learning.

2.6 Organization that emphasizes value, namely administrators and teachers honest and virtuous towards colleagues follow the regulations internal and external audit processes, and use the maximum potential of the individual in performing the job with uncompromising goals for excellence.

Which the research results are consistent with the research of Phramaha Kraiwan Punkhan has studied. The results of the study showed that:

1. The strategic leadership component of the administrators of the Phrapariyatti dhamma school administrators. It consists of 5 elements: 1) strategic planning 2) leadership 3) vision 4) morality and ethics 5) organizational management

2. Strategic leadership style it is a model that consists of 5 essential elements that are feasible, correct, appropriate and can be utilized. Consistent with the theoretical framework of the research.

In accordance with Kanyarat Muang Song that has studied "Strategic Leadership Development Model for Basic Education Administrators" using Delphi techniques in data analysis. The study found that "The Strategic Leadership Development Model for Basic Educational Institution Administrators Based on Expert Thinking consists of Component 1: having a high level of cognitive activity, the ability to think analytically. Which can distinguish various elements of one thing. Component 2: is capable of collecting various information to define strategies, such as planning and project results are reported to be used as information for the development of work and to formulate action plans. Component 3: Ability to predict and determine the future, i.e. capable of being proactive in solving problems urgently. While most executives will analyze the situation first. And waiting for the problem to be resolved by itself. Complement 4: Revolutionary thinking includes allowing the community to take part in setting up school policy. Element 5: The vision is defined, including the inspired vision. Ambitious, out-of-the-box thinking, and the top three selected strategic leadership development methods are study visits. Academic conference and brainstorming as for the concept of the basic education institution administrators, it was found that the key issues according to the five components were Component 1: namely the promotion of personnel to develop themselves and profession for the quality of education. Component 2: is to have a goal of work and happiness in work. Component 3: is a strategic planner. Driving strategies and thinking

proactively. The fourth component is proactive thinking and inspiring colleagues to take initiative in their work. And problem solving and the fifth component is to clearly define the vision in accordance with the changes of society Current situation and strategic goals for the government sector.

3. Results of the study on the Development of High Performance Models for Phrapariyattidhamma School. Development of high-performance models for the 5 areas of Phrapariyattidhamma: 1) the curriculum, 2) the learning process, 3) the innovative media and educational technology, 4) the evaluation and evaluation of education, and 5) the quality assurance of education study the following.

3.1 Ability of the organization to change promote by budgeting to support personnel establish a working network through information technology promote personnel to have knowledge both in the world and in the wrong way.

3.2 The Creation of new knowledge widely promote by organizing activities to promote learning with a student-centered emphasis. Teachers and Students learn, invent, analyze together, and connecting new and old knowledge to face the outside world.

3.3 The Creation of an organization without borders promote the school development plan every year. Establish knowledge-based personnel and create a shared learning network through parents, teachers and students.

3.4 To Motivate personnel to achieve high performance. Promoted by administrators, having Buddhist principles, setting goals according to the school policy and stimulate desire through temptation.

3.5 To Be a great workplace promote by organizing the place to be a "Sappaya". Create a collaborative environment and create a positive attitude to work.

3.6 As a value-based organization people in the organization must be honest and respect each other. And work together as a team.

Consistent with the research of Kanyarat Muangsong has studied "Strategic Leadership Development Model for Basic Education Administrators" using Delphi techniques in data analysis. The study found that "The Strategic Leadership Development Model for Basic Educational Institution Administrators Based on Expert Thinking consists of component 1, having a high level of cognitive activity, ie, the ability to think analytically. Which can distinguish various elements of one thing. Component 2 is capable of collecting various information to define strategies, such as planning and project results are reported to be used as information for the development of work and to formulate action plans. Component 3: Ability to predict and determine the future such as capable of being proactive in solving problems urgently. While most executives will analyze the situation first. And waiting for the problem to

be resolved by itself. Complement 4: Revolutionary thinking includes allowing the community to take part in setting up school policy. Element 5: The vision is defined, including the inspired vision. Ambitious, out-of-the-box thinking, and the top three selected strategic leadership development methods are study visits. Academic conference and brainstorming as for the concept of the basic education institution administrators, it was found that the key issues according to the five components were component 1, namely the promotion of personnel to develop themselves and profession for the quality of education. Component 2 is to have a goal of work and happiness in work. Component 3 is a strategic planner. Driving strategies and thinking proactively the fourth component is proactive thinking and inspiring colleagues to take initiative in their work and problem solving and the fifth component is to clearly define the vision in accordance with the changes of society current situation and strategic goals for the government sector.

4. The high-performance educational institution administration model for Phrapariyattidhamma School consists of:

Academic Management Development to have high performance with the development of personnel, namely administrators, teachers, staff and students in the school development to have high competencies.

5A = 5 Administration, including curriculum administration, learning process, educational media, innovation and technology, education evaluation, and education quality assurance.

6Q = 6 Quality, including 6 features:

1) has changed educational curriculum that is aligned with the community continuously.

2) create new academic knowledge in teaching and learning management.

3) able to teach by media advanced equipment searching without borders.

4) personnel, teachers and creative staff can contribute to teaching and educating communities at a higher level.

5) it is a great place to learn both academic, professional and lifestyle for people of all levels.

6) give both physical and imaginary values with moral value Ethics for society.

VI. Recommendations

A. Recommendations for Practices

1. The Government sector and related agencies in Phrapariyattidhamma School, General Education Department should support the budget for the administration of Phrapariyattidhamma School.

2. Government sector and related agencies should support the development of educational personnel for Phrapariyattidhamma School.

3. The Government sector and related agencies should promote the teaching and learning media to be up to date and sufficient to meet the needs of Phrapariyattidhamma School.

B. Recommendations for Further Research

Because of the research on the issue of academic administration, Phrapariyattidhamma School, High Performance Education Department, setting up environment conducive to academic administration. Research should be conducted on the issue of academic administration at Phrapariyattidhamma School, General Education Department in Thailand, in academic development promoting learning through technology. There should be research on the issue of approaches to development or academic administration strategies of Phrapariyattidhamma School, General Department, organizing learning promotion activities with a learner-centered emphasis.

Conclusion

In Conclusion, the findings from the analysis of both quantitative and qualitative showed that from the study of the concepts, theories, Academic Management Development to have high performance with the development of personnel, namely administrators, teachers, staff and students to qualify according to the principle of high competence in school development, namely 5 courses, learning processes, media, innovation and educational technology. The evaluation and evaluation of education. Education quality assurance with 6 features: 1) Changes Educational curriculum that is aligned with the community continuously, 2) Create new academic knowledge In teaching and learning management, 3) Able to teach by means of media advanced equipment search without borders, 4) Teachers and creative staff can work on teaching and educating communities at a higher level, 5) To be a great place to learn both academic, professional and lifestyle for people of all levels, and 6) Give both physical and imaginary values with moral value ethics for society with support and promotion from the principles of Buddhism in the work.

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Impact on Temple Missions and Roles in the COVID-19 Situation: A Case Study of Phra Nakhon Si Ayutthaya Province

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Abstract— The purpose of this research article was to study impacts on missions and the roles of temples in the COVID-19 situation of the Sangha, Phra Nakhon Si Ayutthaya Province. Mixed methods research was designed. Quantitative research using survey research method was conducted. Data were collected by using online questionnaires through google form tool from monks of 450 temples in Phra Nakhon Si Ayutthaya province. For qualitative research, in-depth interview and online participatory observation were collected during April - May 2020. Results indicated that impacts on the mission of the Sangha in Phra Nakhon Si Ayutthaya Province were shown (1) in respect of ceremonies and rituals temples cannot perform monastic religious and ceremonies under the anti-COVID-19 social distancing policy such as chanting, praying, receive food offerings. For related religion ceremonies such as ordination, weddings, death and general merit making that aiming for the spiritual support of Buddhists, cannot be carried out. (2) For impact on the administration of monastic affairs, online meeting was used for the administration and management. (3) Roles of the measure in the COVID-19 situation, the temple and the supreme rulers of the Sangha have implemented a policy to help society through setting up a restaurant during difficult times, distribute items, consumer goods, food, water and subsistence. At the national level, Phra Nakhon Si Ayutthaya Province Sangha distributed items to facilitate people. (4) Missionary mission by communicating patience, beliefs and principles for self-tolerance via online system which consisted of Facebook, YouTube, Zoom to stay at home to prevent COVID-19 with government agencies for achieving holistic results in managing COVID-19 prevention.

Index Terms— Missions and Roles of Temples, COVID- 19 Situation, Phra Nakhon Si Ayutthaya

I. INTRODUCTION

In a research study on Coronavirus (COVID-19) outbreak in Thailand [1] that provided information on the coronavirus (COVID-19) outbreak, it was found in Thailand since 13 January 2020, with Thailand being the first confirmed case outside the country. China then began surveillance of those arriving from China. In February still found a small number of patients confirmed about 35 later found that more cases. In the middle of March by spreading the infection in a large group that found many patients from Lumpini Boxing Stadium and entertainment venues from the Thonglor area Then, one week later, the country found a situation of confirmed patients more than 100 people per day, causing the government to declare the state of emergency on March 26, 2020 and to prohibit leaving the housing during the night from 3 April 2020 onwards, and in a research paper on Clinical practice guideline for management of spinal fracture and spinal disease in the pandemic of COVID-19 [2]. The data reflected some of that

"The spread of disease is rapid in many areas, posing a threat to people's well-being and damaging the global economy," or in the research "Balance of organizational well-being management" [3] reflecting to "policy setting establish measures to prevent and cope with the spread of the COVID-19 virus, including in the research paper "Coronavirus infectious disease-2019 (COVID-19): a case report, the first patient in Thailand and outside China." [4] that reflect information "... the first case of COVID 19 in Thailand and outside China. As a Chinese female tourist high fever was detected at 38.6 degrees Celsius at Suvarnabhumi airport ... "or in a research paper" Learning Organization: The Challenges of Knowledge Management in the Changing Paradigm" [5] that provides information "Knowledge management in the learning organization in the paradigm of changes in bring knowledge and ability to help the organization through a crisis... " based on information appearing on the educated clergy work. In this study, the overall study of the Sangha in Ayutthaya Province was conducted. It reflects the impact on the

administration of temples and Buddhist affairs, and manage the faith of the people and the role that contributes to society in the current situation of COVID-19.

II. RESEARCH OBJECTIVES

The purpose of this research article was to study impacts on missions and the roles of temples in the COVID-19 situation of the Sangha, Phra Nakhon Si Ayutthaya Province.

III. RESEARCH CONCEPTUAL FRAMEWORK

Conceptual framework of the study on "Impact on temple missions and roles in the Covid-19 situation: a case study of Phra Nakhon Si Ayutthaya Province can be shown as below figure.
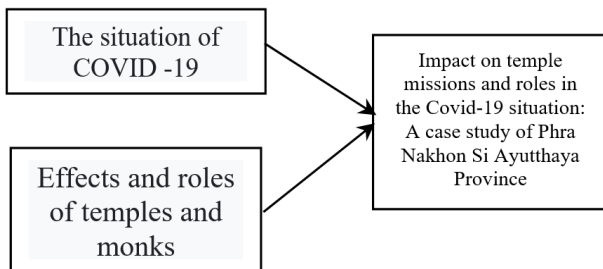
Fig. 1 Conceptual Framework

IV. RESEARCH METHOD

This research is Participatory Action Research (PAR) by in-depth interview 10 key informants, focus group discussion with 11 experts and quantitative research. From a simple sampling of temples with activities and data can be accessed via a specific online questionnaire system in 41 temples with activities helping people from 507 temples in Phra Nakhon Si Ayutthaya province. Questionnaires in the online system Google Form was used for data collection and analyze the qualitative data by focusing on the impact on temples, monks, people and their roles in Phra Nakhon Si Ayutthaya Province.

V. RESULTS

From research studies to impact on the mission and role of temples in the COVID-19 situation: a case study of Phra Nakhon Si Ayutthaya Province, the study found as below:

1. Impact on the mission of temples, monks and Buddhists in Phra Nakhon Si Ayutthaya Province that can be classified as following items.

(1) Effects on the routine of monks and novices living according to the principles of Dhamma and discipline, religious traditions, such as meditation, chanting, alms, going to prosper, Buddhist pray, celebrate faith of the Buddhists in the house activities due to merit and traditions were implicitly canceled. It is the lifestyle of the novice monks as it turns out, a picture of the news of the fear of COVID-19. Ayutthaya Sangha Order do not fling naga-sprinkling alms. Novice monks are required to wear masks [6] or from interviews with the deputy priest of Phra Nakhon Si Ayutthaya Province regarding the impact on the novice monks who have information on the activities of the monks and other. All affected are the same in every measure which had to sustain himself in this difficult situation together [7].

Fig. 2 Order of the Sangha Priest on the Measures of the Epidemic in the prohibition of monastic activities and wearing a mask according to government measures (Source: Watpanancheng Ayutthaya, January 2020) (in Thai)

(2) Impact on the practice of the Dharma and ritual religion means impact on the monks who are required to

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perform their duties according to the Dharma. When government agencies have established measures in regard to spacing and prohibiting any gatherings to meet among many people measures responded to the measure or government policies. Therefore, affecting the monks who have to perform routines such as chanting, rebuilding, chanting the Patimokkha, other monastic activities, spacing measures refraining from performing ordinances, such as the abolition of ordination, abolition of mass-attended cremation, the termination of various merit-making ceremonies, the abstention of people from using services at the temple for all religious-related activities. Thus, it will affect the income of the temple that comes with the donation of the people which affects the cost of water, electricity and other expenses within the temple, including construction education administration [8].

(3) Effects on the administration of the Sangha Affairs is a mission due to the administration of the Sangha both in terms of education management, both Dharma and Pali education, monks and novices in educational institutions must stop. The administration of the Sangha in accordance with the framework of the work, such as government, education, welfare must be stopped or postponed. At the same time, the Sangha and temple have found a channel or other means to manage such as organizing an online meeting, sending work orders via e-mail system, sending via group line in the management of faculties Sangha in Phra Nakhon Si Ayutthaya Province [9].

(4) Impact on the people who use the temple services in Buddhism in terms of Buddhist activities, worshiping monks, and tourism of temples in Ayutthaya that are archaeological sites and tourism including doing activities due to Buddhism [10].

(5) Reflection, assistance or demands of the temple and the affected people. The surveyed temples and monks will present a request to the government, for example, to help temples and communities in the event of a shortage of certain areas to promote the knowledge of self-defense through advising on how to prevent and maintain correct health, free from risks [11] and protect yourself. The temple is the center or channel of communication between government agencies and Buddhist aid resources, [12] the abolition of water and electricity bills to help and alleviate difficulties in the COVID-19 situation [13].

2. The role of temples and monks on people in the situation of COVID-19 in Phra Nakhon Si Ayutthaya Province.

From a survey research study, it was found that the monks had the role to society and the community in the broader picture of Ayutthaya Province. It is the province that has been affected like other provinces according to the measures and guidelines that appear.

(1) Role in establishing a temple as a almshouse to provide assistance to people in distress and low income, having cooked food during social spaced situations and unable to pursue a career.

(2) The role of being the center in providing assistance to the people in which temples and monks have established a donation center to assist people in consumer goods, rice, dry food and necessary utensils, such as masks, washing gel, to prevent the spread of COVID-19.

Fig.3 Temples in Phra Nakhon Si Ayutthaya Province has established a cooked dining hall distributed to people in the community area near the temple.
(Source: Watphanancheng, Ayutthaya, 20 June 2020).

(3) The role of being the center in providing assistance to the people in which temples and monks have established a donation center to assist people in consumer goods, rice, dry food. And necessary utensils, such as masks, washing gel, to prevent the spread of COVID-19.

(4) Role in community modeling in promoting sufficiency under difficult circumstances. Buddhism has principles or the concept of patience including promoting temples in Phra Nakhon Si Ayutthaya Province as food production sites that is to use the free space as a food production source create a garden for agriculture, grow organic vegetables to use as a cooking appliance and distribute to people in the temple area or nearby temple [14].

Fig. 4 Effects on the monks in the administration of the clergy have a meeting through online system to help each other and help people in the COVID situation
(Source: Watphannancheng, Ayuthaya, 30th June 2020)

Fig. 5 Roles of temples and monks in Phra Nakhon Si Ayutthaya Province have established a diner to distribute cooked food and give away consumables consuming for bed-bound patients
(Source: Watyaichaimongkol Ayutthaya, 30 June 2020)

From Fig. 5, reflecting the role of monks in Phra Nakhon Si Ayutthaya province under the situation of COVID which includes roles in social work helping within the framework of public welfare work helping to share food, rice, water, or fostering the creation of food sources planting vegetables in a kitchen garden to distribute to people in the temple area the preparation of cooked food for daily consumption by bringing dried rice to the public visiting a bed-bound patient in a lockdown situation that cannot go anywhere.

VI. DISCUSSIONS

Studies have shown about the role of monks in the situation of the COVID-19 epidemic in Thailand especially in the area of Phra Nakhon Si Ayutthaya Province to do its job of treating and fostering a reactive effect on this difficult situation.

1. Temples and monks and Buddhists as a whole were affected the same throughout the country. Whether it is the ritual effect of the monks to act as one's own religion, to carry out the religious path the impact on people in reaching religious sites and performing their duties as Buddhists are all different. This is in line with the article on Covid-19 crisis affect social change [15] that reflects the results of the study on how the COVID-19 situation affects poverty. Social inequality including economic stagnation and society as a whole or in the research on COVID-19 management 6 Mission – COVID-19, Management of 6 Mission on Buddhist Administration [16] that proposed the concept of temple management. Buddhism under the circumstances which emphasizes the need for adaptation and use of technology communication is used in the administration of Buddhism as well.

2. Impact on the implementation of the roles of the monks on the administration of Buddhism, meaning the monks have to adjust in the administration of the Sangha both in terms of administrative administration and educational Administration. Part of the role of teaching and learning in the classroom was terminated. Administrative administration that requires a meeting have an online meeting. The use of various technologies to assist in the administration of ecclesiastical affairs in line with the research on Coronavirus Disease 2019 (COVID-19) Problems and leadership potential for New Normal Organization Development [17] that reflects in all situations. Everything has to adjust to accommodate the changes that occur to drive the organization or management to have practical results in this difficult situation as well. This is in line with the research entitled "New Normal" A new way of life and adaptation of Thai people after COVID-19: Work Education and Business [18] and adjustment and cooperation in the COVID-19 Virus Situation by according in Buddhism [19]. Proposed is the concept that adaptation to new situations is very important and necessary.

3. The role of monks and temples in providing assistance to society and people in the wake of the COVID-19 epidemic remains an important role and continued to do so

from the past to the present to provide assistance to alleviate suffering of the people according to the burden of the Sangha in the public welfare. According to a research paper entitled The Role of Monks in Helping the people in the Covid 19 Situation [20], it provides information that in the current state, people's lives have been largely changed due to the problem of the Coronavirus epidemic COVID-19 causing the lives of the people to struggle even more it is therefore necessary to have a responsible person and find a way to help people who have suffered in the situation that arise. Monks, as part of society, had to bring the crisis in this situation as an opportunity to help society, to provide relief for the people and is an important part to help alleviate suffering for people who have been suffering, such as helping to donate food, drinking water, masks to make society live happily are generous for each other. Therefore, the role of the monks is essential to make society happier, or in a research paper entitled The Role of Monks in Public Welfare Under the Pandemic of COVID-19 Virus: A Case Study of Luang Por Daeng Nantthiyo's Role, Intharam Monastery, Samut Songkhram Province [21] reflecting that monks still play an important role in Public welfare providing assistance to people, communities and society as well that the temple has social capital and has the potential to help (alms) sacrifice (ja) to benefit the public. As in the case of Luang Por Daeng donated mask, gel, food Preserve, refrigerator, happiness establishment of alms donate funds to help people, temples, monks, government agencies. Educational institutions at the local level is the temple and the community and at the district level Samut Songkhram Province and the national level, which is a response to the Supreme Patriarch's policy in setting up a almshouse to help people and provide items, food appliances, rice, disinfectant dispenser for Mahachulalongkornrajavidyalaya University Amphawa Hospital to support the management under the situation of COVID-19 to pass through, Dharma heals the mind, home visits, online lectures, is another role for monks to work in public welfare in Thailand that monks still play a role in society in various fields especially in the public sector, providing assistance in the event of the COVID-19 epidemic during the current situation.

VII. BODY OF KNOWLEDGE FROM RESEARCH

From research studies can be written as a figure about the situation of the temple and the monks in the current situation that can be defined and brought to public communication.
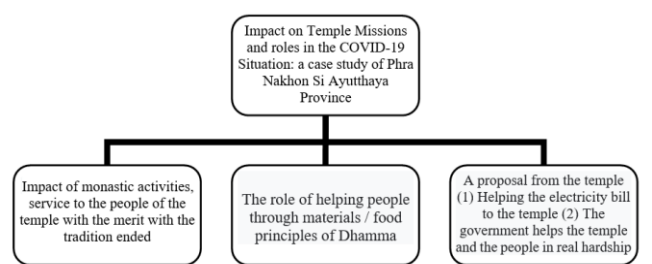
Fig. 6 Body of Knowledge from research

From Fig.6 provides information into 2 cases of effects on customs routines such as prayer and alms which are monastic activities. Effects of the administration of the Sangha administration in the area effects on the administration of society and people such as monks ordination, merit making, keeping precepts. In the part of temples and monks, it caused the monks to help people in the distribution of supplies in terms of principles showing morals, encouragement, strengthening the mental potential in difficult situations in order to keep moving forward with Facebook live, Youtube Dhamma Channel, Banner Dhamma or other channels in the system. All online for the benefit of religious communication are from temples and monks to people.

VIII. RECOMMENDATIONS

A. Recommendations for Policy

1) Policy should be promoted to allow temples and monks to create more roles in society and people through activities, or other projects under the circumstances that continue to spread until now.

2) The government sector should promote a governmental model, operating as a center for helping people in the difficult situation of the epidemic of COVID.

B. Recommendations for further research

1) Research should be conducted on the role of monks in providing assistance to society and people in the situation of COVID-19 that is occurring in Thailand since the new year 2011.

2) Research should be conducted about measures for the administration of the monastic affairs in various areas, especially regarding the adjustment of temples and monks in the current second round of the coronavirus situation.

CONCLUSSION

The situation of COVID-19, people in the holistic body of Thailand in the first outbreak affected by social spacing. According to the state, strong measures is issued to control and shut down the country in holistic situation. Therefore,

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affected that it is no different when specific to Phra Nakhon Si Ayutthaya Province. It showed that temples and monks were affected in a holistic, not much different. But as Phra Nakhon Si Ayutthaya Province is a large province, there are more than 496 temples scattered in various communities that facilitates and provides convenience to the people.

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Technological Innovation for Online Learning during the Situation of COVID-19 Pandemic in Thailand

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Abstract—Online learning in Thailand during the situation of COVID-19 pandemic is appropriate for current educational management. This learning method has been shown good prevention of COVID-19 pandemic, and it was being a measure to control the situation effectively. The purpose of this academic paper was to propose technological innovation for online learning during the situation of COVID-19 pandemic. Documentary study was used for data collection and data were analyzed and presented by descriptive writing. Results of the study indicated that educational technology has played important role for teaching and instruction during COVID-19 pandemic. Active learning and collaborative activities have been using for the learners to have the opportunity to study from home during the situation of COVID-19 pandemic. Various technological platforms were used for online learning consisted of Google meet, Google Classroom, Google Hangout Meet, Live Streaming, Tencent Live Broadcast, Microsoft teams, and Zoom. These teaching instruments are required and all educational personnel should be able to use with effectively in order to encourage their learners on teaching and instruction. Therefore, technological innovations for online learning are developed for teaching and learning in New Normal not only in Thailand, but also all over the world. Blended learning was also being used and teachers need to adjust how to manage their classroom in online platform and how to moderate or mentor with online learning during the situation of COVID-19 pandemic.

Index Terms— Inexperienced Parents, Stability Reinforcement, Buddhism

I. INTRODUCTION

The concept of technological innovation for learning has been of constant importance to the global society ever since we have heard the term "The Third Wave", according to Alvin Topler, mentioned the term "Globalization" is the rapid influx of information from one corner of the world to another, and the term turbulent world (Disruption) is a rapid change in technology flows innovation and social media. When it comes across a strong and fast catalyst, the COVID-19 epidemic, the global society is subjected to automatic change under the term New normal, transforming humanity of learning history in the wake of the terrible COVID-19 epidemic. Online learning has become a necessity or a new way of learning in current global society. Whether voluntary or not, online learning is therefore a new paradigm in teaching and learning in the New Normal era.

It will first mention the importance of "online" as an innovative technology for learning. It will give an overview or a broad picture of the technological innovation for learning to be the first floor covering first. In formulating Thailand's national education policy, the educational policy supervisor established the national education standard in 2018 by determining the desirable outcomes of education (DOE Thailand) or the characteristics of the Thai 4.0 people responding to the world that change in the future and the vision of national development towards stability, prosperity, and sustainability. It is a person with three characteristics consisted of being a learner, innovation co-creator, and a strong citizen focusing on the main principles in practice. The provision of education is appropriate to the context of the learner, community area and society, including the freedom of the educational institution to determine the identity and directions for education management that meet the needs of learners of the local community (Office of the Education Council Secretariat, 2018) [1].

Wirathai Santipraphob (2019) mentioned that "Thai people" preparation for the modern world that Thai people can cope with changes in the modern world at least four

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skills are required: 1) lifelong learning skills, 2) financial planning skills, 3) social coexistence skills, and 4) good mental immunity. The urgent burden of Thai society for human resource development is stressed, and that is to improve various motives correct human development throughout life along with the application of technology and innovation to enable Thais to develop and elevate themselves to the context of the modern world quickly and efficiently (Wirathai Santipraphob, 2019: 10-21) [2].

From the article of Numporn Nithisunthornwit (1990) on the title of "Science Development Technology and innovation to enhance Thailand's competitiveness " mentioned support for enhancing economic competitiveness and laying the foundation for sustainable development. They should focus on the application of existing technology. The development of local wisdom Developing innovations that meet the needs of the manufacturing sector Strengthening the foundation of scientific thinking for youth and Thai society and continuously develop science and technology personnel to enhance the development that leads to the economy and society, sustainable learning by approaches such as 1) development and application and development of technologies that are important to increase productivity by supporting research and development according to the potential of entrepreneurs, both large and small and SMEs, adopt modern technology to be adapted to meet local wisdom and the manufacturing sector appropriately and in line with market needs. Along with supporting the private sector to be a leader in research and development including technology and innovation for commercial use with a focus on the field of manufacturing that Thailand has potential. Interesting issues of this paper in the area of capacity building in health and welfare, it is to improve the quality of life of Thai people by promoting research and development in biotechnology, medical and public health to monitor and prevent heal and restore including research and development of chemicals, bio-products and equipment as well as to produce main drugs in the country to treat common diseases to meet the needs of all circumstances. 2) To initiate innovative development by supporting the introduction of new technologies, concepts and management to develop innovation in industrial processing from agricultural raw materials food industry and equipment for maintaining environmental conditions promote the use of machinery and tools of Thai people especially agricultural machinery. It is including improving agricultural machinery to have quality standards to reduce machinery imports and reduce production costs. 3) Reform the education system and develop learning processes to strengthen the concept and knowledge about the use of science and technology to keep up with the changes and modern science focus on students to think, analyze and solve problems systematically,

logically as a science and take action by yourself and providing opportunities for the community and the private sector to participate in curriculum development and teaching and learning evaluation (Numporn Nithisunthornwit, 2013: 37-44) [3].

II. ONLINE TEACHING AND LEARNING MANAGEMENT ONLINE TEACHING AND LEARNING IN WUHAN AT THE START OF COVID-19 OUTBREAK

When the disease is infected with COVID-19 Epidemic started in Wuhan, China, the Chinese authorities announced a ban on people traveling, including the closure of classes from January 13, 2010 until February 10, 2020. The Wuhan Department of Education announced the closure of classes but did not stop teaching by announcing a ban on teachers, students and government personnel to meet together to prepare for teaching and learning as well as allowing educational institutions to open online teaching and learning at the same time for all levels of education. On the official opening day of the semester require all students to sing the national anthem in unison online, in front of a computer monitor, laptop, mobile phone. The school has chosen a student representative to be an online. The school director welcomed the students and gave a sermon. Most of the themes address the social malfunctions caused by the COVID-19 epidemic, let students understand the difficult situation of the country by asking students to have love empathize, unite, let everyone do their duty and be responsible for society, country and world society. As well as encouraging that Wuhan will be able to overcome this disaster and students will soon return to their school same as instructing students to attend online classes in accordance with the schedule provided since there is still checking the name of the participants like studying in a school classroom.

This is because China had not previously prepared to offer such a broad range of online teaching and learning. The government has spent a certain amount of budget to implement this matter and private grandchildren have been involved in the design of the Application (App) in a variety of formats. So that the education department can use them to suit the conditions in each area and each subject. For preparing teachers, faculty, educational personnel, and the government has created a program for educating teachers and faculty members to be competent in online tutoring on the website. www.eduyun.cn, a national public service platform for educational resources that guides teachers and faculty with instructional procedures and methods to teach online by preparing staff to answer questions when teachers and faculty have problems. Teachers in different schools can use App with free of charge. In addition, the Wuhan Department of Education has ordered teachers and faculty to jointly create (Online coordination) courses, teaching

materials carry out planning, prepare instruction manual and lifestyle plan for students with an emphasis on maintaining the mental state of students. They also establish a system for reporting students outside the school and schedule a time to communicate with students to get an idea of each student's online learning situation either by telephone or any other form of online communication. There is an emphasis on the care of individual students in which the homeroom teacher or the subject must act as a guide and be a mentor in the teaching hours. Some subjects may have outstanding national teachers as teachers in the App provided by the Department of Education where teachers and students will learn together.

Parents are also one of those affected by this online teaching. For teaching preschool and elementary school students, parents need to provide their children with online tools with at least a cell phone. It may be necessary to help a young child download the textbooks, learning materials before the online study hours. Most of the students are excited about this innovative way of learning. Even at first there was a problem for some students who still did not download the document completely. Due to the large number of users, there is some involvement. The Wuhan Department of Education conducted an evaluation of the results of the tuition in the two weeks following the opening of the online semester. It can be summarized as follows advantages students have the opportunity to study with some of the country's best teachers and faculty members. It is because the class teacher or the subject can download the App for outstanding teachers or teachers of the country to teach. It is a great opportunity for students. It is one way to distribute the equality of learning opportunities. While the teachers had the opportunity to learn good quality teachers teaching methods, parents can download information, documents, texts, App with good quality and given to children without cost.

III. OBSTACLES THAT ARE A CHALLENGE TO IMPROVE AND IMPROVE

1) Internet signal in some places is not strong enough for large usage. 2) Teachers, students and parents lacked online learning experience. It made me feel that the teaching was not as convenient as studying in the classroom that can communicate in two ways and see each other clearly in every angle.

2) Hours of online study through mobile phones, notebooks, computers all day causing pupils to have visual problems and after-hours students lose concentration.

3) Students who are slow to learn according to online teaching because when the teacher explained it passed, it was passed. Students have to wait until the end of the hour,

then the teacher will have time to ask questions or exchange ideas for half an hour. If students sometime in doubt of the content, they are unable to understand the next step [4].

IV. ONLINE INSTRUCTION IN THE USA

Online learning in USA has been using for along time as Kyong-Jee Kim and Curtis J. Bonk (2006) [5] mentioned in "The Future of Online Teaching and Learning in Higher Education" that a recent survey of higher education in the United States reported that more than 2.35 million students enrolled in online courses in fall 2004. This report also noted that online education is becoming an important long-term strategy for many postsecondary institutions. Given the rapid growth of online education and its importance for postsecondary institutions, it is imperative that institutions of higher education provide quality online programs. The literature addresses student achievement and satisfaction as two means to assess the quality of online education. Studies focused on academic achievement have shown mixed reviews, but some researchers point out that online education can be at least as effective as traditional classroom instruction. Several research studies on student satisfaction in online courses or programs reported both satisfied and dissatisfied students. Faculty training and support is another critical component of quality online education. Many researchers posit that instructors play a different role from that of traditional classroom instructors when they teach online courses as well as when they teach residential courses with web enhancements. Such new roles for online instructors require training and support. Some case studies of faculty development programs indicate that such programs can have positive impacts on instructor transitions from teaching in a face-to-face to an online setting.

As institutions of higher education continue to embrace and debate online learning, it is important to envision where the field is headed. What might the next generation of online learning environments look like? Will they move from warehousing students in online environments to engaging them in and motivational activities? What technological and pedagogical advantages will they offer? Current studies provide a glimpse of the pedagogical and technological possibilities. Clearly, we are entering a unique and exciting era in online teaching and learning. And perhaps the perfect e-storm is becoming less cloudy and ominous.

For implications of the findings, institutions of higher education need to consider whether they are ready to meet growing learner demands in the coming years. First of all, most respondents agreed that blended learning would have

greater significance in higher education in the future. Although some institutions have already embraced blended learning, many others are slower at adopting it for various reasons. Perhaps leadership from the institution is crucial for faculty to receive adequate support to implement changes in the teaching process.

If the quality of online education is to improve as projected from this study, campuses must also look at the pedagogical issues in online learning. Collaboration, case learning, and PBL are likely to be the preferred methods of online instructors, with few relying solely on traditional methods. The data presented here also indicate that the continued explosion in online learning will bring increased attention to workshops, courses, and degree programs in how to moderate or mentor with online learning, and given that many respondents expect to receive some sort of training and support from their institutions to be ready for online teaching, colleges and universities need to consider how they will respond to these needs.

In addition, our study indicates that postsecondary institutions are finally focusing on how online learning can develop student collaboration and evaluation skills. In fact, most now see the potential of the web in the coming years as a tool for virtual teaming or collaboration, critical thinking, and enhanced student engagement, though not necessarily as a tool for creative and individual expression. Do current CMSs provide tools to realize the potentials of the Web for innovative teaching and learning? Perhaps recent developments in open source courseware will force CMS vendors to develop and market more pedagogically engaging tools and resources.

This survey also forecasts enormous growth in online certification and recertification programs, as well as some growth in associate's and master's degree programs during the coming decade. In terms of technology, the study reveals interest among online instructors in wireless technologies, simulations, digital libraries, and reusable content objects. We perhaps are entering a world where learning objects will be at our fingertips. Learning objects on different topics will likely be something you can grab like magazines and newspapers on the way into a plane, bus, or train. In addition, as bandwidth increases with the next-generation internet technologies and capabilities, simulation and gaming tasks that online students engage in will be more realistic and authentic (Kyong-Jee Kim and Curtis J. Bonk, 2006: 22-29) [6].

Elaine Allen and Jeff Seaman (2010) [7] mentioned that Learning on Demand: Online Education in the United States, 2009 (Learning on Demand: Online Education in the United States, 2009) represents the seventh annual report on the state of online learning among higher education institutions in the United States. The study is aimed at answering some of the fundamental questions about the nature and extent of online education based on responses from over 2,500 colleges and universities, the report addresses the following key questions: (1) How Many Students are Learning Online?; (2) What is the Impact of the Economy on Online Education?; (3) What Contingency Plans do Institutions Have for H1N1?; (4) Is Online Learning Strategic?; (5) Has Faculty Acceptance of Online Increased?; and (6) Do Faculty Receiving Training for Teaching Online? The survey analysis is based on a comprehensive sample of active, degree-granting institutions of higher education in the United States that are open to the public. Findings reveal that online enrollments have continued to grow at rates far in excess of the total higher education student population, with the most recent data demonstrating no signs of slowing. Academic leaders at all types of institutions report increased demand for face-to-face and online courses, with those at public institutions seeing the largest impact. In all cases the demand for online offerings is greater than that for the corresponding face-to-face offerings. Proponents of online learning have long posited that moving face-to-face classes online could become an important component of academic continuity planning. A potential H1N1 pandemic is such an event that might trigger such planning. This year's results show a very small increase from the previous year and begin to signal that a plateau may have been reached by institutions believing that online is critical to their long-term strategy. While the number of programs and courses online continue to grow, the acceptance of this learning modality by faculty has been relatively constant since first measured in 2002. There is no single approach being taken by institutions in providing training for their teaching faculty. Most institutions use a combination of mentoring and training options. Additional tables are appended. [For the previous report, "Staying the Course: Online Education in the United States, 2008."

This idea will lead to the introduction of innovative technologies for online learning during the COVID-19 epidemic. The more concrete issue will be discussed further.

V. ONLINE LEARNING

From the article of Aaron Doering (2007) [8] indicated that "Adventure Learning: Transformative hybrid online education" mentioned that Adventure Learning (AL) is a hybrid distance education approach that provides students with opportunities to explore real-world issues through authentic learning experiences within collaborative learning environments. This article defines this online distance education approach, outlines an AL framework, and showcases an AL archetype. In AL environments,

classroom teachers are not positioned in the role of teacher/facilitator/designer in the online learning spaces. AL online spaces are collaborative spaces where students, teachers, subject experts, and AL team members interact with one another; these are community spaces where traditional hierarchical classroom roles are blurred. Student' roles transform due to the flexibility and design of the AL learning environments as they move from student to reflective practitioner, providing for new ways of learning and teaching.

In the research of Sean B. Eom, H. Joseph Wen and Nicholas Ashill (2006) [9] on "The Determinants of Students' Perceived Learning Outcomes and Satisfaction in University Online Education: An Empirical Investigation" In this study, structural equation modeling is applied to examine the determinants of students' satisfaction and their perceived learning outcomes in the context of university online courses. Independent variables included in the study are course structure, instructor feedback, self-motivation, learning style, interaction, and instructor facilitation as potential determinants of online learning. A total of 397 valid unduplicated responses from students who have completed at least one online course at a university in the Midwest were used to examine the structural model. The results indicated that all of the antecedent variables significantly affect students' satisfaction of the six antecedent variables hypothesized to affect the perceived learning outcomes, only instructor feed-back and learning style are significant. The structural model results also reveal that user satisfaction is a significant predictor of learning outcomes. The findings suggested that online education can be a superior mode of instruction if it is targeted to learners with specific learning styles (visual and read/write learning styles) and with timely, meaningful instructor feedback of various types.

VI. TECHNOLOGICAL INNOVATIONS FOR ONLINE LEARNING DURING THE COVID-19 EPIDEMIC

As COVID-19 accelerates education systems around the world, more educational technology is used, as Jeanne Allen, founder and CEO of the Center for Education Reform, analyzed in Forbes (WORATHAN TECHNOLOGY, 2020) [10] that there was a saying that: every challenge times as with many educational systems in the past, many educational systems have long resisted structural changes. As a result of the development of the Coronavirus, or COVID-19 pandemic, education sector is imperative to find a way for the education system to continue with effectively.

The use of educational technology or educational technology used in teaching and learning help to make the presentation of teaching and learning content more interesting and build engagement between students and more teachers. Even when everyone has to live within their accommodation during COVID-19 situations, this ensures that students will not miss their learning and help students learning path, and can move on for example New Jersey began considering legislation that educational institutions can use "Virtual Education" technology in their teaching and learning. When an emergency occurs, such as the outbreak of the COVID-19 virus, but Jeanne Allen asks whether so why use technology and education only in an emergency? Because in the creation of new educational standards, the world of Educational Technology or "EdTech" allows faster, smarter and more efficient teaching and learning styles. Personalization for example, the Northshore School District case study, which has 33 schools, has designed teaching and learning to be cloud based and used online as a teaching tool to build 21st century skills for student's digital skills, critical thinking, problem solving, collaboration, creativity which learning through the cloud system allows students to learn continuously and leave the framework of learning that is limited to the rectangular classroom. There is an application about education and has AR, VR and AI technologies to meet the needs of education for learners. We don't need a crisis and to rethink the education system, but technology can change the role of teachers from being a guide into sponsorship and give advice to learners. It is hoped that the COVID-19 situation will mirror that innovation and technology can help students. Students and educational institutions go through this time and will continue to see the use of innovation and education technology is typical of the education system using "Tech Company" technology platform to create "online classrooms", where you can learn, one of the most obvious phenomena in the COVID-19 situation is that Tech Company's technology platform is applied to online teaching and learning. Nowadays, people access the internet and communication technology developed in 4G and some countries have reached 5G, making online teaching more convenient and faster, such as

1) DingTalk communication platform and working in the organization, another Alibaba-affiliated service has been applied to online teaching and learning systems in China. During the COVID-19 crisis, more than 50 million students. Students participated in the online classroom program. It is open to more than 600,000 teachers teaching various subjects via Live Streaming.

2) Tencent uses Tencent Live Broadcast to meet online education needs in China during the COVID-19 epidemic, such as in Wuhan. The data on February 10, the past found that on Tencent's Live Streaming system, there are elementary school students and junior high school in

Wuhan, up to 81 percent or more than 730,000 people of the number of primary school students and junior high school in Wuhan, all more than 900,000 people learn online via Tencent Live Streaming.

3) Google Hangout Meet which an online meeting technology supporting multiple people meetings as well as being able to live streaming to support a large audience and save the meeting on Google Drive.

It appears that during COVID-19, schools and universities turn to use these two Google products to make teaching and learning easier outside the classroom (Marketingoops, 2020) [11]. These tools are essential to provide the teaching and learning that teachers and educational personnel must learn how to apply technological innovations for online learning during the COVID-19 epidemic in order to be effective in teaching and learning in this New Normal era.

Fig.1 The New Normal way in which education is not in class, school, university, but everywhere, anytime under the goal of learning to learn remains the same, but the method has changed.

VII. TECHNOLOGY AND INNOVATION TO SUPPORT TEACHING AND LEARNING AMONG COVID-19

Online teaching has interesting technologies and innovations as follows:

A. LMS2@PSU (LMS Model)

The LMS @ PSU system was established for the purpose of supporting the teaching and learning of teachers and students within Prince of Songkla University. The system itself is based on a free software called Moodle (Modular Object-Oriented Dynamic Learning Environment), which allows users to create online lessons in the system to apply them to teaching in the form. The way the teacher wants the highlight is that it is an existing university learning management system. There are tools to assist in student management. There are tools to assist in the preparation of content and links such as Word, Power Point, Youtube, communication tools such as Chat, Webboard, Zoom Plugin, learning measurement and evaluation tools such as Quiz, Poll, Survey, and support for theory. The disadvantage is that it is difficult to use and complex tools.

B. Microsoft Teams

Microsoft Teams is a Microsoft service that is a hub for teamwork in Office 365 with full functionality, such as inviting everyone you work with to chat, meet, call, and collaborate on the single place. It is no matter where the user is for schools, Microsoft Teams will be in Office 365 Education, a customized hub for managing classes such as school material. Student notebook assignment creation of exercises, tests, grading, online teaching, etc. The highlight is that it is an existing university learning management system, and can be used with all communication tools such as PC, Notebook, Tablet, Ipad, Smart Phone. It also can be used with all operating systems Windows, macOS, iOS, Android. There is a student management tool. There are tools to help you prepare content and links and have communication tools. There are tools to measure and evaluate grades, have AI and bot systems such as anti-piracy systems, making a quiz, and creating a survey.

C. Google Classroom

Google Classroom, a Google service, is a tool that facilitates education, designed to give teachers more time to communicate with learners, while at the same time they have more time to search for information. As well Key

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Google Classroom capabilities include: Create and store study data using Google Docs, Drive, and Gmail.Teachers can review their studies at all times and provide guidance to students at any time. Increase communication channels between teachers and learners. This allows them to provide guidance to students at all times, even when they are not in the classroom. Each student's information folder can be categorized, and each student can easily use the information. The highlight is the existing university learning management system. Can be used with all communication tools such as PC, Notebook, Tablet, Ipad, Smart Phone. Can be used with all operating systems Windows, macOS, iOS, Android. There is a student management tool. There are tools to help you prepare content and links and have communication tools There are tools to measure and evaluate grades, have AI and bot systems such as anti-piracy systems, making a quiz, and creating a survey.

Example of using Google Classroom at Faculty of Education, Mahachulalongkornrajavidyalaya University, Thailand which have been set for teaching and learning during COVID-19 situation.

Fig.2 Online Classroom in Faculty of Education, MCU, Thailand

D. Teach by YourSelf (Self Model)

Teachers provide self-teaching through live teaching and conference tools such as Zoom, -OBS Studio, loom, Cisco Webex, and Skype. The highlight is that it can be used with all communication tools such as PC, Notebook, Tablet, Ipad, Smart Phone and can be used with all operating systems. The disadvantage is that there is no learning management tool for students. There are no tools to assist in providing content and links, and there are no tools to measure and evaluate grades.

E. Virtual & Mobile Studio (Techno Model)

The highlight is that the teacher can prepare the content in both theory and practice, record high-definition videos of instruction, broadcast live via Youtube and Facebook, and support both theory and practice courses. (Both in the studio and in the LAB). The disadvantage is that there is no learning management tool for students. There are no tools to assist in providing content and links and no communication tools. There are no tools to measure and evaluate grades. (Department of Technology and Learning Innovation Office of Academic Resources Prince of Songkla University, 2020) [12].

Fig. 3 Learning Activities through Online Platform

CONCLUSION

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Thai online teaching and learning under the epidemic situation of Coronavirus disease 2019 (COVID-19) is therefore consistent with the current situation of the Thai study. It is also a good prevention of the spread of such viral disease and is also another measure to effectively control the disease. It is the study of the world context and apply them to the context of Thai society by 1) focusing on the curriculum adapted to the COVID-19 situation and communicate to all stakeholders of current Thai basic education curriculum, 2) Increase flexibility of structure, study time and diversity of learning styles. The flexibility to spend time and choice of study style allows teachers to design units that are appropriate and promote personalized learning, and 3) emphasis on accountability assessment should still be maintained, but should weigh the assessment of children's learning opportunities rather than measuring knowledge with exam scores. The current epidemic situation requires a variety of teaching and learning styles, so the quality of education that children receive in each area is not the same. Therefore, the same knowledge or skill score cannot be used to create liability. Otherwise, it may result in more inequality. The Ministry of Education should adjust the test-based criteria to weight the non-academic indicators (Non-academic measure) by collecting data on these metrics. Technology can help to reduce the burden of teachers, for example, use the Google Classroom system. This will help the districts to monitor and support the school more relevant to their needs.

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The Implementation of Concrete Areas of the Community Organization Councils for self-governance of Local Communities: A Case studies of the community organization councils in Na Wae Sub-district, Chawang District, Nakhon Si Thammarat Province Thailand.

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Abstract— This article is a part of research study on The Implementation Of the Community Organization Councils for self-governance: A Case studies of community organizations councils in Nakhon Si Thammarat Province Thailand, Which aims to study the Implementation of Concrete Areas of the community organization councils To promote self-governance knowledge of local communities The researcher gave an example of the community organization councils in Na Wae Sub-district, Chawang District, Nakhon Si Thammarat Province Thailand. Which is the prototype area of this research By using participatory action research methods. The results of the research onThe Implementation of Concrete Areas of the Community Organization Councils for self-governance of Local Communities: A Case studies of the community organization councils in Na Wae Sub-district, Chawang District, Nakhon Si Thammarat Province Thailand found that It is a platform for sharing knowledge and experiences among development partners, including government, private and public sectors who are members of community organizations, which have a number of driving activities, both on issues, problems and social capital such as customs and traditions, community services, community rights in resources and environment, organic farming systems in the community, community welfare fund systems, and Community financial institutions etc. And There are new community organizations According to the policy of the agency And government policies such as civil servant shops, Rural Solidarity Group etc. and It is an important strategy to Implementation the community organization council for self-governance in the future. This will be the growth and strength of the Thai citizen movement to another level.

Index Terms—The Implementation of Concrete Areas, the Community Organization Councils, self-governance of Local Communities.

I. INTRODUCTION

The Community Organization Council was born from the Community Organizations Council Act B.E. **2551 (2008)** which has important principles in promoting local communities of the country. Able to Set up a group of community organizations according to their own issues in each area. By jointly establishing solutions and processes for solving problems To make a proposal to the government Both local and national levels And is an important practice in promoting self-governance of local communities In particular, according to Article **21**[1], The Community Organization Council. The mission is as follows. That is, promote and support community organization members to preserve or restore local wisdom traditions. Arts or culture of the community and the nation By creating cooperation with local government organizations and government agencies to manage, Maintenance And the utilization of natural resources that will benefit the community and the nation for sustainability. Along with disseminating and giving knowledge and understanding to members of the community

organization Including cooperation in environmental quality protection, etc.[2] And as Kovit Puang-ngam [3] proposed the self-governance of local communities in 5 different dimensions: 1] self-management of local communities in the area of community plan. 2] Self-governance of local communities in agriculture 3] Self-governance of local communities in terms of natural resources and environment 4] self-governance of local communities in community finance 5] self-governance of local communities in terms of sufficiency economy.

Therefore, the mobilization of community organization councils has been implemented to create concrete areas, self-governance of local communities in the area of **2,953** sub-districts with intensive operations of about **300** sub-districts nationwide. With the preparation of spatial data Organize a self-analysis process To create a local community plan for self-governance, short, medium, long, creating a collaborative mechanism at the local level. Including the participation of the lower base community by providing a forum at the district level. By community organization council Including a network of community organizations is an important mechanism in driving To formulate a plan for the development of self-governance reforms that are consistent with the context of the area.[4] And if since the Community Organizations Council Act B.E. 2551 (2008) is in effect until the year 2019 [5] Found that the effect of the mobilization It was formed as a concrete area for the community organization council, leading to the self-governance of 518 sub-districts Scattered throughout all regions of the country And there is an ongoing operation plan to achieve the goals set. According to the **5-**year community organization council (2018-2022) strategic plan

It is extremely interesting that The Implementation of Concrete Areas of the Community Organization Councils for self-governance of Local Communities: A Case studies of the community organization councils in Na Wae Sub-district, Chawang District, Nakhon Si Thammarat Province, Thailand. This is an area that plays an important role in The Implementation of the community organization council for self-governance of Local Communities. In particular, the forum of the community organization councils is a tool to promote knowledge for self-governance of local communities and as a model concrete area for other community organization councils in the future.

II. OBJECTIVES

To study the Implementation of Concrete Areas of the community organization councils To promote self-governance knowledge of local communities

III. METHODOLOGY

This research study. The researcher used participatory action research methods Or often referred to as "PAR". The study was divided into 2 main features in order to make the study results more complete as follows.

1. Research studies from documents, By studying from academic documents, research results, thesis articles and other evidences Related both within the country and abroad To help fill in the construction of a theoretical conceptual framework for the researcher This can be said to be an important part of this research process.

2. Field research studies to The Implementation of Concrete Areas of the Community Organization Councils for self-governance of Local Communities: A Case studies of the community organization councils in Na Wae Sub-district, Chawang District, Nakhon Si Thammarat Province Thailand. It is a part of research study on The Implementation Of the Community Organization Councils for self-governance A Case studies of community organizations councils in Nakhon Si Thammarat Province Thailand, The researcher coordinated with the community organization council steering committee, namely 1] Chairman of the Steering Committee of Nakhon Si Thammarat Provincial Community Organization Council 2] Secretary-General of the Steering Committee of Nakhon Si Thammarat Provincial Community Organizations Council 3] 5 staff members of the Community Organization Development Institute (Public Organization), By organizing a community forum with representatives of committee steering the community organization council, Na Wae Sub-district, Chawang District, Nakhon Si Thammarat Province And members of the community organization council of 12 villages shared knowledge and experiences These consist of 1] Chairman of the Na Wae Sub-district Community Organization Council 2] Secretary of the Na Wae Sub-district Community Organization Council 3] Chairman of the Na Wae Sub-district Administrative Organization 4] Representatives of 12 members of the Na Wae Community Organization Council

IV. RESULTS

The Implementation of Concrete Areas of the Community Organization Councils for self-governance of Local Communities: A Case studies of the community organization councils in Na Wae Sub-district, Chawang District, Nakhon Si Thammarat Province, Thailand. Found that :

1. The Implementation of the Community Organization Councils for self-governance.

The Community Organization Councils of Na Wae Sub-district, Chawang District, Nakhon Si Thammarat Province Started registration and established around December 2009 under of the Community Organization

Councils Act B.E.2551 (2008) with members who represent community organizations. Covering 12 villages with approximately 2,394 households. The community organizations There are a number of common activities in social driving, both in issue and social capital. such as customs and traditions, community services, community rights in resources and environment, organic farming systems in the community, community welfare fund systems, and Community financial institutions etc. Especially The establishment of a community financial institution spanning all 12 villages can be said to drive the social capital together of the Na Wae Sub-District Community Organization Council. Which is a concrete present And There are new community organizations According to the policy of the agency And government policies such as civil servant shops, Rural Solidarity Group etc.

2. Using the community organization council as is a forum for the community meeting to promote knowledge in self-governance.

Na Wae Sub-district Administrative Organization, Chawang District, Nakhon Si Thammarat Province found that There are approximately 34 community organization groups scattered in the Na Wae Sub-district, Cover area 12 villages, which have been established and registered as members of the Na wae Sub-district Community Organization Council. According to the Community Organizations Council Act B.E. 2551 **(2008)** Therefore, the Na Wae Community Organization Council has the status that is certified under the Act Able to connect groups of community organizations which are driven by various issues Of the district together Thus creating a space for coordination between the state and the community Both the owner of the problem and the contributors in solving the problem. And also found that the Na Wae Community Organization Council There is a community forum to meet members of the community organization council once a month Which the local government agencies and provincial officials and various support staff Able to participate in exchange and learn experiences And set ways to solve problems together Causing the movement of the community organization council in unity And to promote the self-governance knowledge of the committee And a member of the community organization council in Na Wae Sub-district, Chawang District, Nakhon Si Thammarat Province Especially in the area of community benefits as a key component in the self-governance of local communities. And it will be knowledge that can be passed on to members of the community and those who are interested.

V. DISCUSSION

The Implementation of Concrete Areas of the Community Organization Councils for self-governance of Local Communities: A Case studies of the community organization councils in Na Wae Sub-district, Chawang District, Nakhon Si Thammarat Province, Which aims to study the Implementation of Concrete Areas of the community organization councils To promote self-governance knowledge of local communities When considering that Na wae Community Organization Council There are a number of common activities in social driving, both in issue and social capital. To enhance self-governance of local communities And the Na Wae Community Organization Council Having the status that has been certified under the Community Organization Council Act B.E. 2551 **(2008)** Especially driving the mission under Article 21 of The Community Organization Council Act As Phanthip Phet Mak [6] summarized 8 conditions for self-governance of local communities 1] Using the social capital base 2] solving common problems of local people 3] Data preparation as a tool to drive work 4] Use of development indicators as a tool for monitoring development results. 5] The good relationship base between local communities has a common goal. 6] Having a community organization council is a central forum for regular consultations. 7] Opening space for young leaders 8] Coordinating with external agencies to work.

The Na wae Community Organization Council There is a community forum for meeting members of the community organization council together. When considering that It promotes knowledge of the committee for self-governance. And a member of the community organization council in Na Wae Sub-district, Chawang District, Nakhon Si Thammarat Province This will be knowledge that can be passed on to members of the community and interested people and is an important tool for self-governance of the local community.

VI. CONCLUSION AND SUGGESTION

It can be concluded that The Implementation of Concrete Areas of the Community Organization Councils for self-governance of Local Communities: Case Study of Community Organization Council of Na Wae Sub-district, Chawang District, Nakhon Si Thammarat Province Use a community organization council as a forum To promote knowledge Share experiences together of community organizations and Various support networks to contribute to the main goal of self-governance of local communities. However, in order to The Implementation of Concrete Areas of the Community Organization Council for the self-governance of local communities Is sustainable Therefore, there are additional suggestions as follows

1. The Community Organization Council of Na Wae Sub-district, Chawang District, Nakhon Si Thammarat

Province Should monitor and evaluate the driving results of community organizations By creating data sets such as project activities Performance results, problem conditions and ways to improve, etc. To summarize as a lesson and use as a guideline for the operation of community organizations.

2. Development parties Both public and private sectors should be used The community forum of the community organization council for as a tool to exchanging knowledge, And considering the budget to support community projects Including driving other missions of the agency, etc.

3. The Na wae Community Organization Council Must develop and upgrade the driving mechanism to be strengthened From the inside of the community organization council, such as creating participation, cooperation, public awareness Support to strengthen community organization groups That arise from the diverse resource base and community capital, etc. to reduce dependence on the Act and external resources

4. Community organization group Which performs each type of activity should be presented A group action plan once a year, To the meeting of the community organization council For the exchange knowledge together Both operations And evaluation To lead to a lesson summary together

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The Inexperienced Parents: Concept and Process in Stability Reinforcement of the Family based on Buddhism

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Abstract— The objectives of this research were 1) to study concepts and principles in stability reinforcement of family based on Buddhism, 2) to develop a model of stability reinforcement of inexperienced parent-family based on Buddhism, and 3) to create a set of stability reinforcement of inexperienced parent-family based on Buddhism. The mixed methods research was used in the study. The data were collected by in-depth interviews with 55 key informants and with connoisseurship of 28 experts through interview form, focus group discussion form and activity participation form. Data were analyzed by descriptive statistics and content analysis. Results indicated that 1) the knowledge set of stability reinforcement of inexperienced parent-family based on Buddhism consist of bodily action and verbal action. 2) The Model of the study showed that the knowledge set of stability reinforcement of inexperienced parent-family the procedures composed of (1) Custom conservation and continuation to create love, unity, hospitality, assistance, forgiveness and happiness, (2) Mental refining to treat each other sincerely and respectfully and to be conscious on one's duty and society, (3) to transfer the body of knowledge in inexperienced parenthood to the youths in order to make them realize the importance of the couple life and the different opinion but they can share their living together peacefully and happily, (4) to bear in mind with unity and Brahmaviharadhamma as self-behave guideline, (5) to exchange learning experiences as a good companion and to perform the duty based on Gharavasa Dhamma, (6) to set oneself as a good sample and to support the righteousness in the family, and (7) to train and develop oneself to obtain the new positive viewpoint in the family life based on Buddhism. 3) A set of stability reinforcement of inexperienced parent-family based on Buddhism was developed through application network by using the manual of inexperienced parents, concept and the process of family stability reinforcement based on Buddhism.

Index Terms— Inexperienced Parents, Stability Reinforcement, Buddhism

I. INTRODUCTION

Thai families have changed from extended families, with family members being the elderly grandparents who take care of their children. Most of the single-parent families are found to have only father and son or mother and child living together. It is estimated that there are currently 17.9 million Thai families. There are up to 2.5 million single families from the same situation from the registration of marriage and divorce of the family registration of the Department of Administration, Ministry of Interior.

When the Thai family situation changes in the above manner, the occurrence of the problem of a divorced family with a single parent will inevitably occur even more and the consequences for both the divorced spouse and divorce of children, including new parents who are children and adolescents, is considered very difficult to be able to build a complete, strong or stable family, while the most important problem for every family in particular. New parents, abandoned families or single families will have to face economic, financial, social and cultural problems to adapt to these problems. New parents still lack the culture of parenting, wisdom and integrate the principles of Buddhism to lead the way of life of new parents to have a happy mind that is ready to change and strengthen the mind [1].

The study of local culture and wisdom in the Buddhist way is considered to be a framework of concepts and processes that will contribute to the stability of the family in accordance with Buddhism, especially in the family of new parents. The living conditions and conditions in which family members live and run family life happily, balanced and self-reliant by applying local wisdom, which will have a positive impact on the development of wisdom as well as for the survival of culture. And Thai wisdom that is a valuable heritage worthy of care, conservation, protection and development with appropriate strategies, in order to achieve the integration of strengthening the stability of the family leading to the development of society on the basis of sustainable culture.

II. RESEARCH OBJECTIVES

The objectives of this research were 1) to study concepts and principles in stability reinforcement of family based on Buddhism, 2) to develop a model of stability reinforcement of inexperienced parent-family based on Buddhism, and 3) to create a set of stability reinforcement of inexperienced parent-family based on Buddhism.

III. RESEARCH METHOD

The research program on "The Inexperienced Parents: Concept and Process in Stability Reinforcement of the Family based on Buddhism" is an applied research between qualitative research and mixed methods research from in-depth interviews, and samples were selected by purposive sampling of 55 samples and organize a seminar to confirm information from 28 experts. The research method was as follows

1. Documentary Research Study of knowledge according to the principles of Buddhism that are consistent, concepts and principles to strengthen family security in accordance with Buddhism on the basis of Thai society and culture.

2. In-depth Interviews with key informants, including local people, local scholars, clergy, government agencies, and a network of stakeholders on social development and human and human security as the research target area.

3. Focus Group Discussion is the search for conclusions and suggestions from a meeting of experts representing government agencies and a network of stakeholders on social development and human security, local scholars' independent scholars, economics scholars, and social scholars.

4. Non-participant observation was an observation that the researcher did not participate in various activities to reflect the way of life, traditions and culture, Thai way, Buddhist way and use the participation test of attending activities.

5. Analysis of data from in-depth interviews by studying documents, frameworks or theories, and from non-participatory observations, including focus group discussions and the use of descriptive statistics.

IV. RESEARCH CONCEPTUAL FRAMEWORK

The conceptual framework of this research study contains important conceptual frameworks in the nature of research processes and methods, as well as the results of the study as follows:
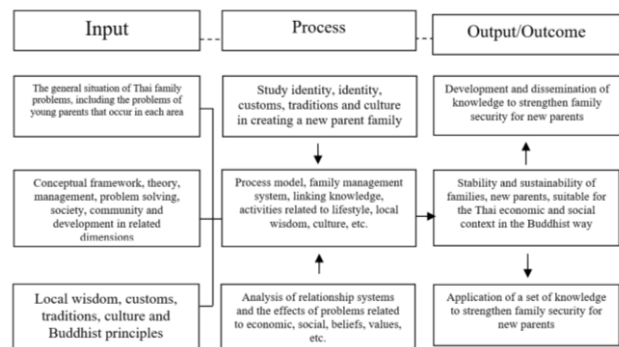
Fig. 1 Conceptual Framework

V. RESEARCH FINDINGS

1. Concepts and principles of strengthening family security based on Buddhism. It was found that the guidelines for a happy family are strong. New parents should bring and adhere to at least two important principles.

1) Principle of 6 direction (Disa VI), which is the principle of living together, treating each other, favoring each other, helping each other in all aspects related to us. Therefore, individuals as members of the family must take care of each other: (1) Treatment each other forehead or parents. (2) Treatment of the right direction is the teacher. (3) Treatment of the background or husband and wife. 4) Treatment of the left direction as a friend. (5) Treatment of the upper direction is monks. (6) Treatment of the lower direction, which is an employee or entourage.

2) The 4 virtues for a good household life (Gharavasa Dhamma IV), or principles for housekeepers who must strictly treat each other, consisting of (1) keeping the truth and honesty with each other, not cheating on each other, it may cause the other party to be dissatisfied or may be angry. The answer may lead to quarrels. Must understand and perform their duties, it will make a happy family life.

2. The a model of stability reinforcement of inexperienced parent-family based on Buddhism found that in the context of the research area, most people will live according to the Thai way and the Buddhist way as capital, and have driven the village rituals. In addition, all temples have organized activities on important Buddhist days, especially in terms of creating jobs, creating honest careers according to the form that comes from three important elements.

1. Physical Action, when individual families, including families of new parents in the community, village, and sub-district, observe the rituals of physical acts, do not drink alcohol or drugs, if you can avoid these things. They can live together in a peaceful family.

2. Speech Action, abstinence from lying, slander, gossip or vulgar language will bring peace to the family, community and village, and bring about the harmony of the

people in the community, but politeness to be a good example to children and not to encourage saying sneakily as a cause of division.

3. Mindfulness, when the community or village has inherited, purified and taught in the matter of way of life, traditions, good cultural traditions and has the principle of "Boon" as the center of the mind when each family, including families, parents, new and kind. Propose Dhamma to each other will result in being able to live together in peace, with a public spirit, seeing the common good rather than personal gain.

3. A set of knowledge to strengthening family security in accordance with Buddhism, a set of knowledge to strengthening family security in accordance with Buddhism with 3D expression, physical action, speech action and mindfulness consisted of 7 processes which are 1) Inheriting and inheriting the tradition of generosity to help build a family to achieve peace, duties and to society. 2) Refining the mind, treating each other with integrity and have good awareness of duties and society. 3) The transfer of knowledge of new parents to young people to know how to live together peacefully. Behavior, 4) Based on the principle of fellowship to have Brahma Viharn Dhamma. It is an tool for the mind and behavior. 5) Exchange learning in a friendly manner and performing duties with secular dharma. 6) Be a good role model within the family, create a network to use the "Guide for New Parents" concepts and processes to strengthen family security according to Buddhism through the application.

VI. DISCUSSIONS

1. Concepts and principles of strengthening family security based on Buddhism. It was found that the mind or conscience must cultivate good values for children and youth or the next generation and bring about harmony, reconciliation, sacrifice, generosity. Being kind and compassionate to each other will result in being able to live together peacefully by integrating with the principles of Buddhism.

1) Principle of 6 direction (Disa VI) , which is the principle of living together, treating each other, favoring each other, helping each other in all aspects related to us. Therefore, individuals as members of the family must take care of each other: (1) Treatment each other forehead or parents. (2) Treatment of the right direction is the teacher. (3) Treatment of the background or husband and wife. 4) Treatment of the left direction as a friend. (5) Treatment of the upper direction is monks. (6) Treatment of the lower direction, which is an employee or entourage.

2) The 4 virtues for a good household life (Gharavasa Dhamma IV), or principles for housekeepers who must strictly treat each other, consisting of (1) keeping the truth and honesty with each other, not cheating on each other, it may cause the

other party to be dissatisfied or may be angry. The answer may lead to quarrels. Must understand and perform their duties, it will make a happy family life in accordance with the research study "Research and development of strong families through the participatory learning process of the Sub-district Administration Organization "The concept of a strong family 7 key issues consisted of 1) Principles of creating an ideal family, 2) Principles of knowledge about strong families, 3) Principles of knowledge about the concept of strong families, 4) Guidelines for the development of interconnected elements, 5) Guidelines for the development of elements of flexibility, 6) Guidelines and 7) (Yutthana Chaijukul, 2009: 162-184) [2]. The principle of follow-up in accordance with the research study "Development of warm family indicators for families in Lampang Province" which found that the indicators The Family Warm Temple for Families in Lampang Province consists of 5 components, a total of 31 indicators, classified as 1) the basic needs of adequate, 4 indicators, 2) the members have virtues and responsibilities of 5 points. Temple 3) There is a process of refining members, 9 indicators 4) Good family relationships, 9 indicators 5) Good environment and social support, 4 indicators (Sriprapai Inchaithep, 2011: 123) [3], and in accordance with the concept of Bhumibol Adulyadej (P.A. Payutto), (2004: 23-24) [4]. Constitution of life that the principle of coexistence, which is called the six essence is 1) Kindly Physical Action, express good hopes for colleagues, joint ventures, communities by helping various businesses by willingly showing polite manners, respect each other both in front and behind the scenes, 2) Kindly speech, or advise and warn each other with good hope, speak politely, show respect to each other both in front and behind the scenes, 3) Mercy Concept, thinking towards each other with mercy, that is, set the mind to have good wishes, thinking of doing things that are beneficial to each other, look at each other in a positive light with smiling faces towards each other, 4) Public utilities have come to share, eat, use, that is, share the profits obtained justly, even if it is a small thing, it is distributed so that it can be shared for general consumption, 5) Ordinary eyes behave well like him, have good behavior, maintain discipline of the community, do not make it disgusting or degrading to the group, and 6) Common sense to adjust opinions is to respect, listen to each other's opinions, agree to agree, compatible in the principles of the main ideals of goodness or the same ultimate goal.

2. Forms of strengthening the stability of the family, new parents, the Buddhist way should encourage people in each family to observe the five precepts and encourage them to practice the principles of Buddhism as follows.

1) Physical action encourages the healing of various rituals that occur physically, it will be pure, abstain from drinking alcohol, resulting in the ability to live together in a peaceful family.

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2) Speech Action, refraining from lying or rude words will bring families, communities and villages together in peace and tranquility and bring about the harmony of the people in the village and do not support or encourage slander which is the cause of division.

3) Mindfulness, in terms of community ideology, there is an inheritance based on the traditional way of life, good traditions and culture, and the principle of "Bovorn" is the center of the mind, which will bring about the unity and harmony of the people in the community and the nation. Public development community in line with the research study on "Adaptation process and parenting training of adolescent mothers who have to take care of their children alone in a case study of service users from Sahathai Foundation."

The research results show that the conditions of adaptation and parenting of adolescent mothers have both personal and environmental factors. The adaptation process has 4 steps: Step 1: Assess the problem. Step 3: Plan to find solutions to problems that arise, and Step 4: Solve problems when problems cannot be solved, need to go back to re-evaluate the problem. Strengthening the acceptance of the truth encourages young mothers to be optimistic about group activities, especially to prepare for parenting training (Patcha Zhengklinchan, 2014: 73-89) [5], and Phra Dhammapidaka (P.A. Payutto) (1988: 23) [6] is mentioned in the book "Dictionary of Buddhism, Dhamma Code version" to each other. The principles of coexistence are: 1) Compassionate acrobatics: set compassionate acrobatics in a chaste friend, both in front and behind the scenes, 2) Compassionate meditation: Set compassion in a chaste friend both in front and behind, 3) Consciousness in the chastity friend, both in front and behind the scenes, is to set good intentions, 4) Public utility: to get anything and share it, 5) Silasamunyata, there is the same precepts with all the celibate friends both front and back, and 6) Thitisamunyata, has the same good level and always have a good attitude both front and back.

3. A set of knowledge to strengthen the stability of the family of new parents based on Buddhism. A set of knowledge to strengthen the stability of the family of new parents according to the teachings of Buddhism with 3 Dimensions expression. Physical action, meditation, mindfulness and 7 processes which consisted of 1) inheritance of the tradition of generosity to help each other help to alleviate the burden of each other, 2) Refining the mind, treating each other with integrity and have good awareness of duties and society, 3) Transmitting the knowledge of new parents to young people to know how to live, accept life, live together, can live together peacefully, 5) Exchange and learn in a friendly manner, 6) Be a good role model within the family, 7) The principle of living according to the teachings of Buddhism, encourage new parents, create family stability according to Buddhism

through the application in accordance with the study, research, living conditions of families, parents, adolescents and social services for families.

The results showed that the lives of family members, parents, and adolescents from the study of the roles and responsibilities of family members, adolescent parents, and relationships between family members differed in the role of income and decision-making power within the family. The main earners of the family of teenage parents are only 1-2 people, namely the parents of the teenage mother or both father and mother. The family income is income with uncertain income. In addition, the head of the family is responsible for all expenses in the home and must support many members of the family (Maleewalert Sakornsiri, 2014: 47-57) [7] studied "the relationship between strong personal and family factors and the cost of living of teenage pregnant women."

The results showed that strong family characteristics were positively related to the cost of living of pregnant women and adolescents, which was statistically significant, and the lowest cost of living was in terms of community power. Support and promote a good cost of living is to help pregnant women, adolescents have good health care behaviors during pregnancy, reduce risky behaviors, know how to think, be able to make decisions and solve problems correctly, as well as know themselves and find solutions. They are able to take care of the fetus and raise a child to be born with good quality, which requires the cooperation of all parties, including families, educational institutions, hospitals, communities and society, especially the promotion of strong families such as establish good relationships between family members, upbringing, interactions that occur between parents and children, as well as learning the roles, duties, responsibilities of themselves and others in the family [8][9]. According to the experience of being a mother of teenagers, they have experience in 3 issues, namely 1) creating a new family, 2) trying to give what she has never received to her children, 3) will not allow history to repeat the traces [10][11] [12]. New parents should have an ideal life partner in Theravada Buddhism and lead a practical life.

VII. Body of Knowledge from Research

From the study of concepts and principles to strengthen family security based on Buddhism, to lead to the development of models to strengthen family security, new parents, the Buddhist way and the process of strengthening family security based on Buddhism were as follows.
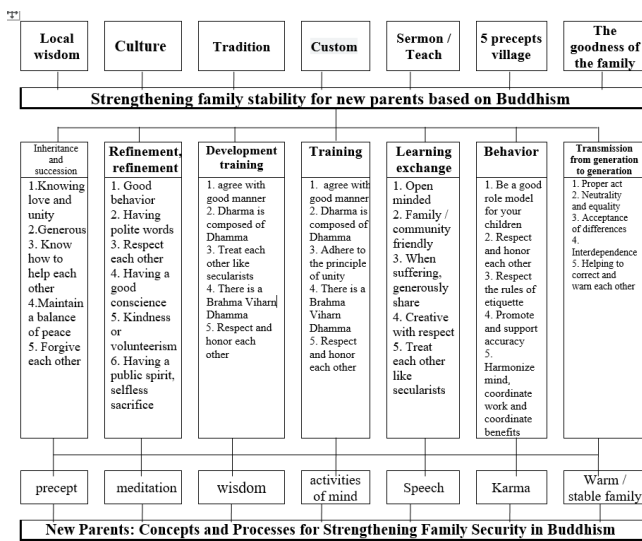
Fig. 2 Body of Knowledge from research

VIII. RECOMMENDATIONS

A. Recommendations for Policy

1) There should be succession, support, and encouragement, 1) knowing love, unity, 2) recognizing generosity, 3) helping each other, 4) maintaining peace, and 5) forgive each other in the family, including the village community to keep new parents warm and uncluttered.

2) Training, teaching, supporting and encouraging 1) introducing each other with the consent of the Dhamma, 2) helping each other to think and ponder on what they like, including Dhamma, 3) adhering to the principle of unity in building family stability 4) There is Brahma Viharn Dhamma with kindness, 5) Respect each other both in front and behind the scenes.

B. Recommendations for future research

1) There should be research on the patterns and processes of family security in the age of globalization

2) There should be research on cooperation and government networks with the security of new parents in accordance with Buddhism.

3) There should be research studies on lifelong learning to build family stability in the digital age

CONCLUSSION

Strengthening families and communities in preventing sexual risk behaviors of youth. It is strengthening families and communities in caring for young people to prevent sexual risk behaviors by organizing a program to take children to temples on Buddhist holy day. In order for parents to have more time to talk and train each other, it is also to develop the minds of young people to be volunteer, virtuous, ethical, and another way to strengthen families is

to set village rules to control the risk behaviors of young people. Young men and women under the age of 18 should not be allowed to live together in risk areas or at night, and the sale of alcohol and cigarettes should not be allowed. Young role models to set a good example for peers is a good example to live by participating in activities organized by model youth to convey the rules of the village and the law and to help warning friends who have risk behaviors to prevent the problems that will follow, so must rely on young people to help society to achieve peace community.

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The Strategy of Watershed Area Community Management on Flood Disaster Prevention and Solution

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Abstract— The research objective of the strategy of watershed area community management on flood disaster prevention and solution was to synthesize a strategic plan to prevent and solve flooding problems in the middle of the water area and a community solution to prevent and solve flood problems. This research used the applied research methodology between quantitative research using survey research from questionnaires. The qualitative research collected data from in-depth interviews from key informants and focus group discussions was used to develop a strategic plan for community management in the area of strategic water with the prevention and resolution of flood problems. Research findings showed that the strategy of watershed area community management on flood disaster prevention and solution that will lead to the formulation of plans, namely, preparation strategies, flood prevention strategy, flood management strategy, strategic remedy strategy and strategies for sustainable solutions in order to meet the goals set forth in both the development dimension for sustainability, efficiency dimension in resource management, dimension of quality of flood management and the effectiveness dimension of driving while operating in an emergency which must be driven by 16 strategic plans, 84 missions and 35 indicators of success in order the public, so this for the people, community leaders, networks partners, department of government, private sector networks and public charity organizations in the area integrated together to achieve the objectives and goals as specified.

Index Terms— Strategy, Community, Management, Prevention

I. INTRODUCTION

From the past to the present, Thailand has experienced several severe floods and the value of the damage each year from billions to tens of millions. The statistics for the past 20 years from 1992-2012, Thailand has been damaged by floods. The total value of 1.7 trillion baht. The year that suffered the most is the year 2011 with more than 12 million people affected. The World Bank estimates the damage as high as 1.44 trillion baht and classified as a disaster that causes a lot of damage. The fourth largest in the world (National Disaster Prevention and Mitigation Committee: 2011), followed by 2010 worth 16,338 million baht, 2002 worth 13,385 million baht and 2000 worth 10,032 million baht, with damage covering both life and property. Property such as people in distress and deaths, government buildings, temples, schools, commercial buildings and private homes, as well as agricultural and livestock areas were damaged [1]

For Nakhon Sawan Province, the Nakhon Sawan Disaster Prevention and Mitigation Office has summarized the damage of Nakhon Sawan Province from the Great Flood 2011 (Special Flood Prevention and Response Center, Nakhon Sawan Province: 2011) [2] found that there are disaster areas. From the floods in 15 provinces, 123 sub-districts, 9 municipalities, 1,244 villages, divided into areas affected by floods, 5 sub-districts, 45 sub-districts, 580 villages, flood-affected areas, 10 districts, 78 sub-districts, 664 villages, 75 urban communities, 113,099 households. 356,012 people were affected, 91 people were killed, 112,219 houses were flooded, 105 schools, 190 temples, 45 public health facilities, 62 roads and more were damaged. In 13 districts, 903,400 rai were severely damaged. Livestock, fisheries have also been affected. In addition, the Nakhon Sawan Chamber of Commerce also assesses the value of economic damage (Nakhon Sawan Chamber of Commerce: 2011), [3] especially in the commercial and industrial sectors that there are shops, companies, stores and industrial plants. Get lost No less than 6,000 people were affected by the floods, valued at more than 9,000 million baht, divided into assets and professional tools, including the submerged inventory sector, while in the industrial sector, machinery and goods were damaged. Damage also includes damage from business opportunities that will require a period of physical recovery and build trust with countless customers and partners.

Prevention and solution of floods after the catastrophic floods in 2015. Integration, provision, supply of water sources or monkey cheeks, layout of the city plan, construction of concrete walls, protection of water in the economic zone, transportation system that does not.

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Obstruction of waterways, dredging of canals or rivers, or even diversion of waters across the watershed that people are trying to think of doing now is a new option for the previous government to decide to recover. Investments will be made while reforestation, increasing forest area, preventing further deforestation, including the construction of weirs in forest areas for water management. Keeping water available throughout the year is another way to help solve the problem of global warming. Another way to get attention to support, promote, rarely have tangible results, including the aim of creating a plan to prevent, remedy and rehabilitate the state of mind. At present, there is no systematic drive, and in the past, most of the activities were carried out in the form of straw fires, there was no continuity, and no network of organizations was formed in the form of volunteer groups or Public Psychology Group.

Therefore, strategies to prevent and solve flood problems to find a solution for the community from the process of preparation, prevention management or response to disaster recovery and sustainable solutions. In order to obtain a strategic framework for the management of floods or crises that will guide the prevention and solution of floods to communities in the middle of the water to be strong, ready and a strong community. Sustainability and self-help as has happened in the past, the research team is interested in studying research in the above research plan.

II. RESEARCH OBJECTIVES

The research objective of the strategy of watershed area community management on flood disaster prevention and solution was to synthesize a strategic plan to prevent and solve flooding problems in the middle of the water area and a community solution to prevent and solve flood problems.

III. RESEARCH METHOD

This research uses Applied Research methodology using quantitative research by survey research from the questionnaire to study the problems and conditions of community management from the past to the present in a sample of 1,592 samples. The analyzed statistical data was synthesized as a framework for qualitative research by collecting data from in-depth interviews with key informants representing the public. The results of the study were developed into a strategic model for community management and presented to the focus group discussion with a group of qualified experts of 54 experts in focus group discussion to analyze and synthesize to find common conclusions to develop a strategic plan for strategic management of the mid-water community with the prevention and solution of floods.

IV. RESEARCH CONCEPTUAL FRAMEWORK

In the research study on " The Strategy of Watershed Area Community Management on Flood Disaster Prevention and Solution", the research team organized the conceptual framework expressed in the nature of the study process and method, as well as the results from the study as follows:
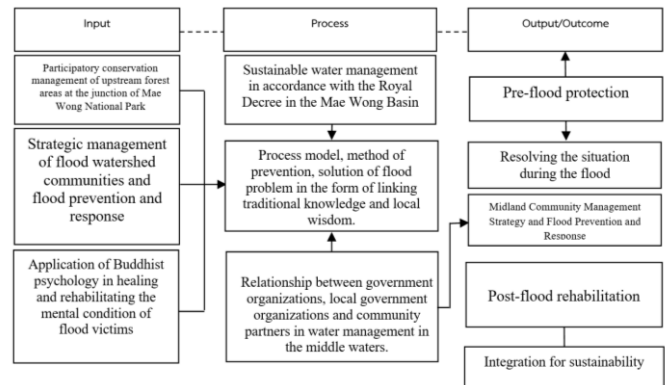
Fig. 1 Conceptual Framework

V. RESULTS

Strategic plan to prevent and solve floods in the middle of the river can be divided into 5 major strategies, including strategies for preparation (Preparation) strategies for flood prevention (Prevention) strategies for flood management (Response) strategies for Recovery and strategy to solve sustainable problems (Sustainable) and have set goals for action from the dimension of development for sustainability (Sustainable Building) dimension of efficiency in the management of resources dimension. The quality of flood management (Serve the Flood) and the dimension of effectiveness in driving operations in the event of an emergency flood (Run the Crisis Management) through 16 strategic plans, 84 mission issues and 35 key success indicators for people, communities, relevant government departments and the private sector integrate together to achieve the objectives and goals.

VI. DISCUSSIONS

The results of the research study on the strategy of community management in the middle of the river and the prevention and solution of floods are consistent with the research study on the management of the Chao Phraya Basin in 2016 and the guidelines for flood mitigation by dredging the Chao Phraya River "(Department of Irrigation, 2011) [4] found that the management of the Chao Phraya Basin during the dry season is more than solving the problem and mitigating the damage from the flood in case of flooding and flooding into the agricultural area and community because the Chao Phraya River has sand in the basin. This is an important obstacle to water, so it should be dredged and improved to increase drainage efficiency and reduce the duration of the upper flood to

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reduce. This is in line with the research study "Best Practices on Flood Prevention, Protection and Mitigation" (United Nations and Economic Commission for Europe (UN / ECE): 2002) [5] which found that flood forecasting and warning were required timely planning and operation at all levels in a systematic manner and ongoing training to deal with damage from water problems. Floods during operations should create unity in solving problems, and after the flood, it should be a standard compensation system and based on the basic economic conditions of the country, which is consistent with. The results of the research on strategic management of the mid-water community showed that the prevention and solution of floods in the area of Nakhon Sawan Province were found both in terms of survey research and from the collection of information and facts using in-depth interviews from key Informants who are the people and stakeholders in the midland community.

At the same time, the strategy of community management in the middle of the river and the prevention and solution of floods, if you look at the form and method of management throughout the solution will be different from the concept of "flood management in a case study of The Netherlands" (Peeraya Chuwuttiyakorn: 2011) [6] found that the Delta works project, which is a project to build dams and river gates of the Rhine-Scheldt to prevent sea problems. The central water area in Nakhon Sawan province is facing floods due to floods from the upper North, especially from the three major rivers, namely Ping, Wang Yom and Nan rivers. The area of Nakhon Sawan, which is the source of the Chao Phraya River, and if it rains more than usual every year, a huge amount of water will flood many communities in Nakhon Sawan for months, which is different from the case of the Netherlands. Floods or floods caused by high seawater problems make the solution is to create a system to prevent or prevent water from flooding the city while Nakhon Sawan. The solution is to make the water drain into the sea as soon as possible or as much as possible.

In terms of the conceptual framework or perspective of the strategy for community management in the middle of the river and the prevention and solution of floods, if considered in depth and delicate, it is consistent with the research results on "sustainable development in Berlin people's lives" (Fuengarun Prididilok: 2012) [7] who found that sustainable development in the way of life of the people of Berlin is a development that focuses on creating a balance in three dimensions: the economy, society and the environment that must be developed in all dimensions. Relationships and interrelationships and are part of being able to change people's behavior in accordance with the natural way. At the same time, it is also in line with the concept from the research results on "Strategies for the development of the Thai economy under natural disasters and Environment" (Songtham Pinto and Chanaporn Seriworawitkul: 2012) [8] found that economic development that may affect the environment and increase the chances of disasters should be planned on the basis of geographical considerations and appropriate allocation of natural resources to prevent negative impacts on the community externalities and also related to the research on "Development of the process of" proactive community planning by the community, (The case of the master plan of the landscape of the municipality of Tambol Prik), Sadao District, Songkhla Province" (Napong Nopketu: 2011) [9]. Community Collective Ownership is the key to driving public policy and improving the environment and quality of life, and is a bottom-up community management process or bottom-up process where the community must jointly study the environment for themselves and then lead to debate, refinement and create a picture of the future of the community together.

In addition, if we look at the form of community management in accordance with the philosophy of sufficiency economy, the research results of the strategy of community management in the middle of the river and the prevention and solution of floods are consistent with the research results. A strong community management model is based on the philosophy of sufficiency economy in the upper central provinces "(Wittaya Chandaeng and Chanong Adiwattanasit: 2013) [10] found that in building a strong community, what is important is to promote the participation, knowledge management and learning of people in the community by providing support in the form of tripartite, including community organizations, government organizations, partner organizations to create guidelines for community rehabilitation, adaptation guidelines. Community and guidelines for the survival of the community, which is not different from the research on "Lessons from the Tsunami to the Great Flood crisis 2016" (Nantiya Thongkhanarak: 2012) [11] found that in the prevention and correction in the crisis will lead to the unification of the public and private sectors to help each other more in the form of natural birth, no order, the use of individual knowledge and expertise to help support. At the same time, it is a lesson for people in the community to stand up together, save, rehabilitate and deal with the crisis with strength together in the future.

At the same time, the strategy of community management in the middle of the river and the prevention and solution of floods, if analyzed according to the principles of Buddhism, it will be found that when human morality affects the environment and the environment is inseparable from human actions, human beings and systems. Ecology is a network of human actions, the impact on the environment with power, human greed, chaos and injustice are creeping into human life (Manop Nukkarnrean: 2003) [12] and in line with the views of Buddhadatta Bhikkhu towards nature (Thaweewat

Puntarikwiwat: 1995) [13] who found that pure nature is an example of a pure society, the solar system coexists without disturbing each other, all life in the universe is inseparable, has sufficient natural productivity. Only a life of justice in society will occur when people return to a state of natural balance. People have the right to use only certain resources as necessary. People must learn to share the excess with others, know how to consume less resources and should be cultivated for all people in society should know how to control their difficulties and greed and in line with research studies on "the development of ethics for the environment. With the process of creating a future together "(Rungthip Klahan: 2007) [14] found that the monks have made efforts to promote the production of repetitive mental innovations to solve complex social problems and strengthen social organization by using the cultural costs of society to integrate with the concept of Buddhist principles for the development of society. However, the work of the monks is independent and varies according to the situation in the area, which is different from the work of the state by encouraging people in the community to unite in the community for mutual learning through practice, with the goal of earning a living and being self-sufficient, generous to each other, and learning together. Respect and generosity to each other to create knowledge and increase knowledge to support each other. Creating opportunities for learning with a sense of responsibility is rather than concern at high and hidden in the society to create value and value for coexistence, which is to cultivate the strength of the community by integrating the concept of participation for development, and improving the quality of life under the context of the community.

The strategy of community management in the middle of the river and the prevention and solution of floods are also in line with the research on "Guidelines for increasing agricultural efficiency through the participation of communities using the Mae Sab Reservoir, Samoeng Tai Subdistrict, Samoeng District. Chiang Mai "(Dechrat Pintana and others: 2012) [15] and found that the people are involved in surveying the area to see the cost of the meeting to set the rules, there are penalties for violating the rules and activities through the news tower. Coordination with the government is monitored by the Committee for the Control of Religious Principles and Beliefs for the purpose of forest conservation philanthropy. There is a committee of local government organizations as a consultant to promote simplicity and unity. It is also consistent with the research on "participatory community forest management model of the community of Tambon Pan, Muang Pan, Amphoe Mueang Pan, Lampang Province" (Prayoonsak Buathet and others: 2010) [16] found that the process of managing the use of forest regulations. Jointly organize forest traditions such as forest ordination, forest destiny, community forest management in other forms, such as fire protection to prevent forest fires, construction of dams. Forest learning, local firefighting, local learning process, and the addition of knowledge from the model community. Bamboo forest firefighting volunteers have been established in their own community forest areas to motivate nearby communities to receive support from the community, public and private agencies form a community forest network.

The strategy of community management in the middle of the river and the prevention and solution of floods are also related with the research on "Forms and methods of cultural rehabilitation, beliefs in community forest management, Pink Sub-district, Pink District, Khon Kaen Province", [17] which found that the expansion of the temple's sanctuary, the ordination ceremony of the forest to restore the belief in the ghost of Pu Pu Ta, Don Pu Ta area to be a conservation area for the elderly to restore the cemetery and the prohibition to designate it as a ritual forest. Knowledge to children and in line with research on "reliance on forest resources of the people in the buffer zone of the Huai Kha Khaeng Wildlife Sanctuary" (Sura Sastra: 2000) [18] found that the products from the forest that most people collect are bamboo shoots, wild mushrooms, wild vegetables, and forest products. People's forests include total household expenditure, size of holding area, duration of settlement, ethnicity and number of household workers, and are in line with the research on "Creating social cooperation in the conservation of forest and water resources in the sub-shoulder area, Nan, Wiangsa District, Nan Province "(Nanthamit Nantasen and colleagues: 2002) [19]. It was found that the sub-district of Lai Nan has conserved forest and water resources, both in reproduction and redevelopment, such as landscaping, expansion of conservation areas, development of social rules, development of conservation areas as tourist attractions, development of management, promotion and protection of forest and water resources, development of public communication and public relations, development of mindfulness or mental health. Community spirit integrates into local curricula using social processes or public forums, leading the formation of public policy, the application of local beliefs and traditions, the praise of good deeds, the linking of community relations with the community or other organizations, the application of social rules, community participation until the community forest conservation and fish conservation.

VII. BODY OF KNOWLEDGE FROM RESEARCH

From the strategic plan to prevent and solve floods in the middle of the river, which can be divided into 5 important strategies, including strategies for preparation (Preparation), strategies for flood prevention (Prevention), strategies for flood management (Response), Recovery and strategy to solve sustainable problems (Sustainable) and

have set goals for action from the dimension of development for sustainability (Sustainable Building) dimension of efficiency in the management of resources (Management Resources) dimension. The quality of flood management (Serve the Flood) and the dimension of effectiveness in driving operations in the event of an emergency flood (Run the Crisis Management) through 16 strategies, 84 mission issues and 35 key success indicators. Therefore, it is for the people, communities, relevant government departments and the private sector to integrate together and will lead to the achievement of the objectives and goals as defined in the details summarized in the Fig. 2 as follows.
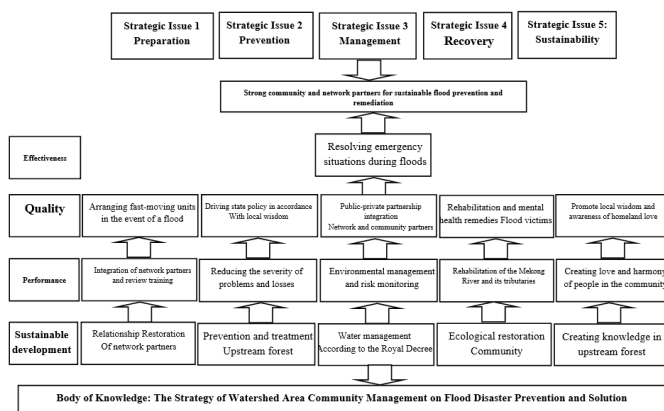
Fig. 2 Body of knowledge from research

VIII. RECOMMENDATIONS

A. Recommendations for Policy

1) A review of management in the form of a formal organization or a vertical organization and then applied to a more horizontal organization management.

2) Establishing collaborations and networks to manage community issues on the basis of intimacy, either in the form of kinship, community or network community

3) The state must give importance and support to promote lifelong learning for sustainable solutions.

B. Recommendations for future research

1. The strategy of community management in the middle of the river should be studied and the prevention and solution of flood problems in the strategic issues in the preparation before the flood in the middle of the water.

2. Water management should be studied in accordance with the Royal Decree on the basis of understanding, access and development, as well as coexistence with nature.

CONCLUSSION

A study on the strategy of watershed area community management on flood disaster prevention and solution found that it is a proactive or strategic management system. There should be an infrastructure system for crisis management in terms of the system, information system, situation monitoring, surveillance and alarm system, communication system, supply system, equipment, tools and emergency transportation, public relations system, information dissemination system, development system to promote and encourage the potential of individuals, families, groups, organizations, community agencies, people, networking and monitoring and evaluation systems. The preparation of learning exchange plans needs the creation of the core, the formation of public policy, the application of local beliefs and traditions and the connection of community relations with other communities or organizations, the application of social rules, and community participation. Community forest conservation is also prepared for the strategy of community management in the middle of the area and the prevention and solution of floods to meet the set objectives.

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The Importance of The Attractions for Historical, Cultural and Natural Resources U-thong District, Suphanburi Province

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Abstract–The purpose of this research was to study the importance of attractions for historical, cultural and natural resources U-thong district, Suphanburi Province. The population of the study consisted of experts and people involved with the attractions. Qualitative method was designed. Qualitative data was collected from 12 key informants and was analyzed by using content analysis. Results indicated that U-thong district had many attractions and can be divided into 3 groups as follows. 1) The historical tourism has been shown 3 sites in 2 sub-districts: 1.1) U-thong had Wat Khan ThamThiam, Wat Khao Phra Si Sanphetchayaram and U-thong National Museum. 1.2) Chorakae Sam Phan had Wat Khao ThamSua. 2) The cultural tourism has been shown 4 sites in 3 sub-districts. 2.1) U-thong has had Chao pho phrayachak shrine and Ban Khok. 2.2) Don Makuek had Ban Don Makuek weaving group. 2.3) Ban Don had an ancient black tai cultural restoration center. 3) Natural Resource Tourism has been shown 3 sites in 2 sub-districts. 3.1) U-thong has had Phu Hang Nak rock park and Phu Muang forest park. 3.2) Phapphachai had agricultural extension and development center. The suggestions of this study were 1) there should be more publicity for tourist attractions in U-thong district, and 2 coordinate various departments in supporting tourism in U-thong district.

Index Terms— *The Attractions, U-thong District, Suphanburi Province.*

I. INTRODUCTION

U-thong used to be an important city. Which has traces of the ancient community from time to time, but the prehistoric period continues until the time of Dvaravati culture from India. Used to be a center of ancient trade linking between the Andaman sea and the gulf of Thailand. Correspond to [1]and[2]said the ancient city of u-thong was a city that had Indian culture. Including trade that distributed in many areas in different areas. This location of the community and traces of ancient civilizations. Correspond to [3] said U-thong was an important city, where a Roman coin was unearthed in the 3rd century and had a mooring point between the river used to be a trade route. The people in this area were rich. There was jewelry such as gold beads known as Suvarnabhumi.

Today u-thong is an ethnically diverse area of indigenous such as Thai, Thai Song Dam, Thai Phuan, Thai Chinese, Lao Wiang and Lao Khang, but [4] said u-thong district has had 5 ethnic groups:Thai, Thai Song Dam, Thai Chinese, Lao Wiang and Lao Khang. However,ethnicity has interested traditions within their identity. That can be used as a cost to generate income for various communities, including within u-thong district. There have been also various tourist attractions by many other natural sources. That has been still abundant can incentivize tourists to come visitconsistent to [5] said community-based tourism can stimulate the economy at the foundation level, creating jobs, income distribution to the community,solving the problem of poverty.

Attractions within U Thong District has been important place of history, culture and natural resources. Whichhas had long story.And worthy of conservation.For this reason, it has made me interested in studying the importance of the attractions for historical, cultural and natural resources U-thong District, Suphanburi Province.

II. RESEARCH OBJECTIVE

The objective of this research article was to study the importance of the attractions for historical, cultural and natural resources u-thong district, suphanburi province.

III. RESEARCH METHODS

A. Research Design

Qualitative research used research tool was interview. Data collected from in-depth interview. Qualitative data from 12 key informants analyzed by using content analysis. The process of implementation consisted

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of1) Documentary study from primary sources including story of attractions of u-thong district, suphanburi provinceand other related documents. 2) an area study of understanding community. 3) Studied spatial data through in-depth interviews and observed within the area. 4) The obtained data analyzed by triangulation and 5) Research finding.

B. Research Process

Step 1	- Studied documents and related research - Studied of understanding community
Analyzed concept, theory and related research aboutattractions ofu-thong district, suphanburi provinceand other related documents	
Step 2	- Synthesizedof data after studied documents and related research - Created questions from studied information from documents. - Find the validity from the project advisor.
Measurement Design	
Step 3	- Data analysis methodused triangulation
Analyzed Data	
Step 4	- Group data
Research Finding	

Fig.1 Research process for analyzed the importance of the attractions for historical, cultural and natural resources u-thong district, suphanburi province

IV. RESULTS

The research found u-thong district, there were many attractions. Can be divided into 3 groups as follows.

1. Historical tourism referred to tourism that focuses on the history of the community and tourist attractions in u-thong district, consisting of

1.1 Wat khan tham thiam

Located at u-thong subdistrict, u-thong district, suphanburi Province. It was an ancient temple from ancient times. With the assumption that it may be the first temple in Thailand. Which after 300 years of the lord buddha's death. The lord buddha's death has made a third amendment with king ashoka at

Research process of this research had 5 steps consisted of to analyze concept, created research tools, conduct the experiment, and to assess experimental results. Steps were shown in Fig. 1.

Research Process   Research Method

the city of patali. He sent diplomats out to various places with phrasona and phrauttarathera spreading Buddhism to Suvarnabhumi. They inscribed in the ancient Sanskrit that pushaya Kiri or pusakhiri meant mountain flowers because the mountain had beautiful flowers.

On top of wat khan tham thiam has a cave. Which was received in 1928. If you walk up to the top of that you will find a small old temple with a door into one side. Near each other there is a chedi in the Ayutthaya period and as a point to watch the sunset as well.

Fig.2small old temple

Fig.3 Sunset point

1.2 Wat khao phrasisanphetchayaram

Located on winyanuyokrd, u-thong subdistrict, u-thong district, suphanburi province. It was old temple has existed since the Dvaravati period. Before u-thong city flourished. There were also old objects. Many pieces were evidence in the composition,

such as buddha amulets, phirod Buddha amulets, reclining buddha images, hermit images as a form of Dvaravati. Most of them were broken, leaving only the heads. Some buddha image had not head. The collected part was collected from the back of the great reclining Buddha. Which the general villagers call "loung pho sang sisanphet"

On top of Wat khao phrasisanphetchayaramhas phramonthop enshrines a replica of the buddha's footprint make from natural green stone and the remains of 1 Ayutthaya period pagoda

Fig.4the buddha's footprint

Fig.5loung pho sang sisanphet

1.3 U-thong national museum

Located on malaimanrd, u-Thong subdistrict, u-thong District, suphanburi. Operated since 1959. U-thong national museum had 2 buildings.

Building 1 has shown exhibition on the ancient city of u-thong and Dvaravati culture has divided into 2 rooms.

Room 1 has been a room that exhibits prehistoric antiques and the development of the ancient city u-thong. Which found evidence of human habitation since prehistoric. Society during that time was an agricultural society. It has been considered to be during the Neolithic period and continued to the metal age. And ancient evidence that has shown u-thong ancient city used to be a major trading hub for the ancient communities in the region.

Fig.6 Agricultural society

Room 2 has shown the story and importance of the ancient city of u-thong as the early historical city of Thailand. It was once a commercial center and a center for buddhism before spreading prosperity to other ancient and contemporary communities. So Important antiques on display include Dhammachak, stone, bronze buddha image, terracotta buddha images, etc.
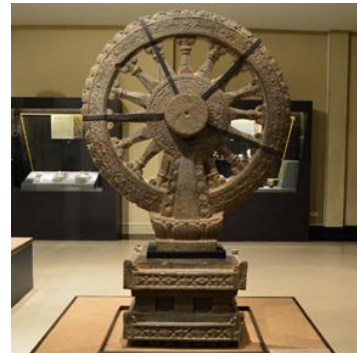
Fig.7Dharmachak stone

Building 2 has been permanent exhibition about the land of Suvarnabhumi, historical development of the ancient city of u-thong, Sea trade routes and the ancient city of u-thong as the center of Buddhism has divided into 2 rooms.

Room 1 has shown the historical developmentof the land of Suvarnabhumi, important commercial sources of the ancient world and trade between various ancient communities both inside and outside with antiques and media exhibits various types of modern.

Fig.8 Display room sign

Room 2 has shown simulate the maritime trade event from the Indian Peninsula to the land of Suvarnabhumi some 3,000 years ago, the maritime of foreign merchants and major trade routes and port at that time. Which has believed that part of the trade route with the ancient u-thong city.

Fig.9 Ancient U Thong City Plan

1.4 Wat khao thamsua

Located on chorakhesam phan subdistrict, u-thong district, suphanburi. Wat khao thamsua has sacred archaeological site. Which was before Wat khao thamsua. This area has unearthed many ancientpagodas. In which each chedi has had many valuable antiques. Currently, only the base of the pagoda cannot be assumed. The cause of the collapse has come from two reasons: 1) from time and 2) human destruction due to excavation of antiques in the pagoda, but with a quiet atmosphere and it has been good place for meditation. Causing monks has come to Buddhist lest in order to practice themselves until the creation of a monastery.

Fig.10 Ancient Terracotta Monks

2. Cultural tourism referred to tourism that focuses on the studied of old ways of life in u-thong district, consisting of

2.1 Chao pho phrayachak shrine

Located near u-thong subdistrict municipal market, u-thong Subdistrict, u-thong district, suphanburi province.

History of chao pho phrayachak has been an idol of Vishnu during Dvaravati period. Made of laterite and engraved with embossing. The u-thong people found this image around the year 1857. This idol has floated through the chorakhesam phan river. They brought out of the water and built a

shrine for the villagers to worship. Cause called "chao pho phrayachak" because the u-thong people saw Vishnu with four hands and hold the chakra in his hand. Characteristics of the shrine built as a Chinese shrine because there have been many Chinese people in the u-thong market.

In the middle of the night on August 29, 1967, a fire at the shrine. But idol of Vishnu was not damaged. Causing the villagers in that area to have faith. Worshiping brings happiness, good trade and a safe journey.

Fig.11chao pho phrayachak

2.2 Ban khok

Located at u-thong subdistrict, u-thong district, suphanburi province. This has been where Lao Khrang people live. Who emigrated from Laos in the reign of Rama 3 until Rama 5, then has come here. Lao Khrang's way of life is simple. There are two interesting things in the community:

2.2.1 Antique bicycle museum

Ban khok people has been farmers. When the product has obtained. It will be sold to the market. Often used bicycles to sell products. Headman of ban khok kept the old bicycles. Some bicycle are over 100 years old. There have been many activities for tourists.

Fig.12Antique bicycle

2.2.2 Ho chaw nai

Lao Khrang people have long respected ghosts.Causing the ban khok people has preserved traditionalculture. Where the place of performing the ceremonyhas called "ho chaw nai" has been an important sacred place of the village. It has been an

open courtyard at the front ant the end there has been big trees. Near has been the location of 7 small shrines, arranged in a row in front of the board. ho chaw nai has been a place to seize the minds of the ban khok people.

Fig.13Ho chaw nai

2.3 Ban don makuek weaving group

Located at don makuek subdistrict, u-thong district, suphanburi province. Ms. ThonglodThongchua has been group leader. This group has been weaving according to the identity of the Tai Song Dam people. There have had 4 types of fabric prepared: cotton, silk, watermelon pattern sarong and sarong. Weaving of this group is inherited for many generations until becoming a dress culture

Weaving process 1) Started by growing cotton or Planting mulberry silk 2) Bring a girl into a thread 3) Weaving a piece of yarn.

Fig.14Sample product

2.4 Ancient black tai cultural restoration center

Located at ban don subdistrict, u-thong district, suphanburi province. The symbols that stand out when they arrive had been traditional house of Tai Song Dam or "huankradongtao". The house has divided into different rooms. In the house has shown appliances clothing in everyday life. Cause called huankradongtao because it has caused by 2 sources:

2.4.1 Turtle has help human beings by helping to teach prayers to god.

2.4.2 Turtle told the god that humans are benevolentcreatures. God sent buffalo to help agriculture. Whenthe buffalo died. Tai Song Dam

people put the buffalo horn on the roof. Which is another symbol of the Thai Song Dam.

Traditional house of Tai Song Dam has been a reflection of building a house that compatible with nature and respects nature.

Fig.15huankradongtao

3 .Natural resource tourism referred to tourism thatfocuses on the studied of natural resources and plants in U-thong district, consisting of

3.1Suphanburi agricultural extension and development center

Located at phapphachai subdistrict, u-thong District, suphanburi province. Operated since 2002. On an area of 380 rai. The objective of establishmenthas been to develop work in plant varieties and traincareer in agriculture both in production using technology. Tissue culture in the laboratory, kindergarten distribution of species, planting, promotion, training in various technologies, support for farmers.

In the center has been annual plant-related activities such as the Tulip festival in January, Rose festival in February, Lotus festival in June, Siamese flower festival in August, Sunflower festival in December etc.

Fig.16Cactus flower of the desert

3.2 Phu hang nak rock park

Phu hang nak rock park has been an ancient stone garden that has been tens of thousands of years old. The garden has been naturally beautiful. Stone shapes and patterns can be imagined in various shapes. According to the idea of tourists. On the hill a spring comes out. Has a meander-like appearance. Then flow together to form a source of

water has called huai hang nak. This is another place where you can watch the sunset.

Fig.17Phu hang nak rock park

3.3   Phumuang forest park

Phumuang forest park has been a natural forest near the u-thong district. During the rainy season, the water in Phumuang waterfall has been abundant. It has been another famous tourist attraction. Within the park can be camped for those who have interested and like the quiet natural atmosphere. Classified that Phumuang forest park has been a natural tourist attraction near the city. Within the park will find a beautiful forest.

Phumuang forest park with an area of approximately 1,725 rai, the area has been a mixed deciduous forest alternating with bamboo ruak. Within the forest park, there have interested things, such as the nature trail, a distance of 1.50 kilometers and takes about an hour and a half to walk.

Fig.18 Bicycle trail pumuang forest park- phuhangnak

V. DISCUSSIONS

U-thong district had various attractions many interesting both in history, culture and natural resources. Some places there were still less tourists because used to lack public relations. Public relations have been of great importance to tourism because it has made tourists interested in visiting. Consistent with the research of [6]and [7] saidpublic relations has contributed to tourists' interest in tourism. The public relations were required cooperation from the governmentbecause it has been one of the roles of the government involved in tourism consistent to [8] said the government has involved in public relations, promotion and dissemination of tourism to domestic and foreign tourists.Therefore, the public relations have been very important. It has

been in from of a travel guide, pamphlet of map. Currently, the most popular public relations channel has been internet consistent to [9]found today, tourists found tourist information from the Internet.

VI. RECOMMENDATIONS
A. Recommendations for Practices
   1. There should be more publicity for tourist attractions in U-thong district.
   2.   Coordinate various departments in supporting tourism in U-thong district.

B. Recommendations for Further Research
Should study the traditions of each ethnicity in U-Thong District

CONCLUSION
   In conclusion, the findings from the analysis of qualitative showed although U Thong District has many tourist attractions. But some places are very few tourists.Because of the lack of publicity.

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The Social Development Strategy in Line with Buddhist Integrative to Self-sufficiency on the Basis Driven by the Civil State

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Abstract— Objective of this research was to propose the social development strategy in line with Buddhist integrative to self-sufficiency on the basis driven by the civil state. Methodology was the applied research using in-depth interview from key informants, focus group discussion with experts, action research by workshop and development on field study for apply the social development strategy in line with Buddhist integrative to self-sufficiency on the basis driven by the civil state. Research findings showed that the social development in line with Buddhist integrative to self-sufficiency on the basis driven by the civil state, an analysis of the weaknesses, strengths, threats and opportunities to development and to define a mission consisted of 1) a mission that must be fulfilled immediately, 2) a mission that must be fulfilled, 3) a mission to be initiated, and 4) mission to review. As for the strategic issues to achieve the strategy for the social development strategy in line with Buddhist integrative to self-sufficiency on the basis driven by the civil state, namely: strategy 1: development according to the principles of Buddhist practice, strategy 2: developing mental faculties, strategy 3: lifelong learning, strategy 4: coexistence in a multicultural society, and strategy 5: to driven of Buddhist development center.

Index Terms— *Social Development, Buddhist Sufficiency, Civil State*

I. INTRODUCTION

The current Thai society is a society of consumption that has no material limit, which causes all kinds of distress whether in urban or rural society. It is because different people have to rely on economic factors to help them survive. It can be seen that everyone is working tirelessly for their own and family's survival, regardless of whether they are rich or poor, and they are struggling to make ends meet. The more prosperous the materialistic society, the greater the desire for human beings, the greater the need for material things in order to escape from hunger and thirst as a source of subconscious harassment to others. It is because in the world of globalization, our society adheres to other societies that are progressive and consumerist [1].

In addition, in the world of globalization, our society adheres to other societies that are progressive and consumerist. In Thai society, we sometimes tend to stare at his shortcomings rather than his good ones. Therefore, in developing or resolving those situations, there is a need to develop or create a strategy for the development of an integrated Buddhist society for self-sufficiency on the basis of driving along the lines of democracy, which will have a mission. What are the strategic objectives to be developed so that people in the community and society can live together peacefully? There is a community and society development context that is consistent and in line with the Thai way, the Buddhist way, and it is also a development that responds to the Philosophy sufficiency economy of His Majesty King Rama IX, His Highness. [2]

Thai society is staring at his shortcomings rather than his good ones until he becomes complacent in the above social situation. It is considered to be a challenge to the principles of Buddhism, which is the unit that nurtures morality in life. Humans, especially family institutions, educational institutions, religious institutions and community institutions, will have a role to play in encouragement and development Thai children, youth and the Thai people to be good people with stronger morals and ethics by encouraging religious institutions to disseminate the essence of religion, accurate and provide space for the practice of Dharma thoroughly as well as the creation of innovations and activities to promote the learning of children and youth to be moral, ethical in accordance with the teachings of religion [3] [4].

II. RESEARCH OBJECTIVES

Objective of this research was to propose the social development strategy in line with Buddhist integrative to self-sufficiency on the basis driven by the civil state.

III. RESEARCH METHOD

Applied Research was used for research design and the method was as follows.

1. Key Informants

The research project on "the social development strategy in line with Buddhist integrative to self-sufficiency on the basis driven by the civil state" has an in-depth interview with key informants by key researchers. Purposive Sampling in local groups, local scholars, community scholars, clergy, public organizations, government agencies, partner networks, networks of local academics, independent academics and people in the research target areas, divided into sub-projects into 5 sub-projects and each sub-project interviewed 25 key informants which were 125 key informants totally.

2. Focus Group Discussion

The research team has organized a meeting to gather the opinions of experts by group to find conclusions to obtain information that will lead to the strategy for the development of a Buddhist society. Sufficiency on the basis of driving along the path of democracy through 9 experts of sub-projects 1, 9 experts of sub-project 2, 9 experts of sub-project 3, 9 experts of sub-project 4, and 9 experts of sub-project 5, a total of 45 experts.

3. Participants in Action Research

In order to obtain a strategy for the development of an integrated Buddhist society for self-sufficiency based on the principles of democracy, the research team conducted a workshop and Action Research in Field Study to search the practical results with the people and Buddhists in Nakhon Sawan through 250 people of sub-projects 1, 200 people of sub-project 2, 100 people of sub-project 3, 100 people of sub-project 4, and 100 people of sub-project, a total of 750 people.

4. Research tools

1) In-depth interview form consists of 5 aspects: 1) development according to the principles of practice (eating, rituals, prayers), 2) development of mental intelligence, 3) lifelong learning, 4) coexistence in multicultural society, and 5) driving the public training unit in Prachuap Khiri Khan

2) Focus Group Discussion form consisted 5 aspects which were 1) development according to the principles of practice (eating, rituals, prayers), 2) development of mental intelligence, 3) lifelong learning, 4) coexistence multicultural society, 5) driving the public training unit of Prachamtambon (OPT) to find conclusions from experts to lead to the formulation of strategies for the development of an integrated Buddhist society for sufficiency on the basis of driving along the lines of democracy.

3) Action Research through driving development in 5 areas: 1) Development according to the principles of practice (eating, rituals, prayers) 2) Development of mental intelligence 3) Lifelong learning 4) Coexistence In a multicultural society, 5) driving the public training unit of Prachamtambon (OPT).

4) Non-participation observation is the observation of the behavior and motivation and development of those involved in activities organized in the development of an integrated Buddhist society on the basis driven by the civil state.

5. Data collection

1) Collection of information from primary source is a collection of information from the study of the Dharma, commentary and decree in Thai version.

2) The collection of information from secondary sources is the collection of information from documentary research as a description of documents, books, concepts, theories, as well as research related to development integrated Buddhist society on the basis driven by the civil state.

3) Data collection from the interview form is the collection of data by the in-depth interview from key informants.

4) Collection of data from focus group discussions by experts to develop a model that will lead to the development of integrated Buddhist society through action research.

5) Collection of data from Action Research in the field study to see the practical results throughout the research period.

6) Collection of data from non-participation observation in the development of an integrated Buddhist society on the basis driven by the civil state.

6. Data analysis

1. Content Analysis, which is obtained from the study of documents research from the framework of ideas or theories to help analyze the information in-depth and conducts conclusions.

2. Analysis of data obtained from in-depth interviews

3. Finding the conclusion of the focus group discussion.

4. Evaluation of workshops and action research in the field study.

5. Interpretation from observation and in-depth interview that collected from key Informants, focus group discussion, workshop. Action research in the field study is the result that will lead to the development of strategies for the development of integrated Buddhist society.

IV. CONCEPTUAL FRAMEWORK

The conceptual framework in this research study contains important conceptual frameworks in the nature of research processes and methods as well as the results of the study as shown in Fig.1.
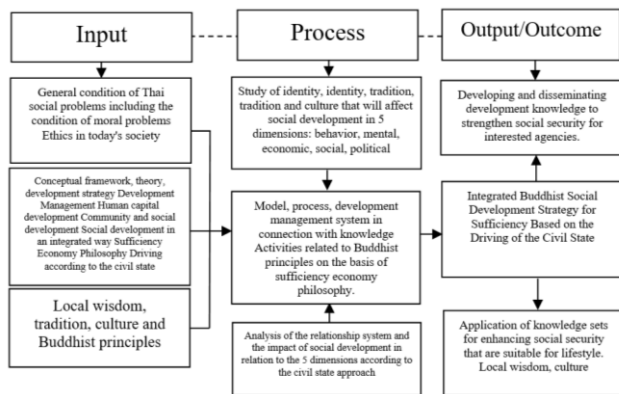
Fig. 1 Conceptual Framework

V. RESEARCH FINDINGS

Summarizing the results of this research, the researcher will discuss the key issues of the social development strategy on Buddhist integration for sufficiency on the basis of driving on the basis driven by the civil state through the findings of each step in the development of Buddhist integration for sufficiency on the basis of driving along the path of democracy 5 strategies as follows:

Strategy 1: development according to the principles of Buddhist practice, in the development of an integrated Buddhist society for self-sufficiency on the basis of driving in accordance with the principles of civil society through driving development according to the principles of practice (eating rituals). It is important that the clergy, community leaders, people, local government organizations, government agencies and network partners must help drive development: 1) support and promote lifelong learning model, 3) support and promote the conservation of local wisdom, 4) support and promote the power to drive the community with the following indicators: 1) number of projects / activities that have been promoted, and 2) percentage of participants**.**

Strategy 2: developing mental faculties, the development of mental intelligence by developing an integrated Buddhist society for self-sufficiency on the basis of driving in accordance with the principles of civil society through the development of mentality in accordance with the principles of spiritual wisdom, objectives, and the important principles of the clergy, community, community, people, local government organizations, regional agencies, states and network members will help drive development: 1) support and promote the practice of Vipassana in all areas, 2) support and promote the Golden Land Dharma Project, 3) support and encourage the power of the public mental health network and developed according to the principles of mental development. There are indicators: 1) the number of projects / activities that have been promoted.

Strategy 3: lifelong learning, in the development of an integrated Buddhist society for self-sufficiency on the basis of driving in accordance with the principles of democracy through the development of lifelong learning of the clergy, community leaders, community organizations, local government agencies. The government and network partners must help drive development: 1) create agricultural gardens, Buddhist agriculture theory, 2) gather knowledge and cultural evidence, 3) gather local knowledge and wisdom, 4) allocate public space for community learning exchange, and 5) build an anti-drug sports field in the temple and develop according to the principles of lifelong learning. The indicators are 1) the number of projects / activities that have been promoted, and 2) the percentage of the number of participants**.**

Strategy 4: coexistence in a multicultural society, in the development of an integrated Buddhist society for self-sufficiency on the basis of driving in accordance with the principles of democracy through the development of coexistence in a multicultural society. Community leaders, people, local government organizations, government agencies and network partners must help drive development: 1) organize activities to strengthen awareness and responsibility in the community, 2) create a set of knowledge about multicultural society, and 3) organize activities, strengthening love, unity, harmony, development according to the principle of coexistence in a multicultural society. There are indicators: 1) the number of projects / activities that have been promoted.

Strategy 5: to driven of Buddhist development center, in the development of an integrated Buddhist society for sufficiency on the basis of driving in accordance with the principles of democracy through the development of driving in accordance with the principles of driving the public training unit of Prachamtambon (OPT) has clergy, communities, community leaders, people, local government organizations, government agencies and network members on the basis of mental intelligence consisted of 1) Build a consciousness of moderation, 2) build awareness of rationality based on mental intelligence, 3) build physical, mental and social immunity, 4) develop knowledge in the field of development. There are indicators: 1) number of projects / activities that have been promoted, and 2) percentage of participants.

VI. DISCUSSIONS

This research discussion will discuss the strategies for the development of an integrated Buddhist society for sufficiency on the basis of the five principles proposed by the people as follows:

Strategy 1: Development in accordance with the principles of practice (eating rituals) through driving development in accordance with the principles of practice (eating rituals). Help drive the development in accordance with the concept of Manu Sonthiwattana[5], which found that the development of a happy society of the community based on religion in Phra Nakhon Si Ayutthaya has 8 compositions, namely 1) D = Dogma (community members follow the teachings of religion), 2) O = Oneness (Community members are united), 3) C = Coordination (good coordination within the community and network), 4) T = Training & Learning Program (training and learning activities that are consistent with the community way of life), 5) R = Religions Center, 6) I = Independence in Public Participation, 7) N = News & Knowledge Distribution News and knowledge to the community), and 8) E = Equilibrium & Integrated Development (balanced and integrated community development).

Strategy 2: The development of mental intelligence through the development of spiritual wisdom. There are monks, communities, community leaders, local government organizations, government agencies and network members to help each other drive the development in accordance with the concept of Assoc. Prof. Phra Boonlert Indhapanyo and others [6] found that the implementation of the 5 Precepts Village project focused on building a network by providing opportunities for people in the village to participate in the drive and to be voluntary, supportive or dependent and have coexistence using the principle of compassion, not in accordance with materialism, that is, there is self-sufficiency, satisfaction in what exists, and there is harmony in the unity of the group.

Strategy 3: Lifelong learning through lifelong learning focuses on clergy, communities, community leaders, government agencies and network partners to gather cultural knowledge and evidence, local wisdom, and allocate public space for learning exchange. The community created a Buddhist agricultural garden as a source of lifelong learning and a Lan Tham sports field to fight drugs in the temple, in line with the results of a research study entitled "Analysis of the success of community development of Ms. Thongdee Phothiyong from the perspective of Buddhism" by Pongsak Manidej [7] who found that in the past, the role of community development was usually based on the monks, but now the situation has changed. Some things may not be convenient for the monks to do, so it is open. The opportunity for the laity to play a role or participate is considered to be a complement to the development of the community, creating the power to take action to develop, solve problems and prevent the degradation of the community by bringing ideas together to achieve the intended results.

Strategy 4: Coexistence in a multicultural society through driving the development of coexistence in a multicultural society and responsibility in the community, 2) Create a set of knowledge about multicultural society, 3) Organize activities to promote love, unity, harmony, and development in accordance with the principle of coexistence in a multicultural society according to the Buddhist way of the village in the area of Lopburi. [8] Use the five aspects of community self-reliance, including technology, economy, natural resources, mental and social and cultural. For the Buddhist principles used to develop the community are the four principles of purity, non-interference, prudence, morality and moderation. The five ways to be self-reliant are to use technology appropriately based on local wisdom. It is the principle of spending as much as necessary and adhering to the philosophy of sufficiency economy, making agreements on the use and sharing of resources, adhering to the teachings of Buddhism and accepting the changes that have taken place and participating regular community activities and strict adherence to traditions.

Strategy 5: to driven of Buddhist development center, in the development of an integrated Buddhist society for sufficiency on the basis of driving in accordance with the principles of democracy through the development of driving in accordance with the principles of driving the public training unit of Prachamtambon (OPT) has clergy, communities, community leaders, people, local government organizations, government agencies and network members on the basis of mental intelligence consisted of 1) Build a consciousness of moderation, 2) build awareness of rationality based on mental intelligence, 3) build physical, mental and social immunity, 4) develop knowledge in the field of development in accordance with the research study on "the integration of Buddhist ethics in the life of the Thai people in today's society." Phrakrupalad Suwat Methakhun (Chaiyan Suebkraphan) [9] found that in living life, the basic and essential Buddhist ethics are the principles of Benjasin and Benjatham, while the intermediate level of Buddhist ethics are the eight precepts and the ten precepts of Buddhism. The higher level is the eightfold path.

The Buddhist method of creating motivation to maintain the 5 precepts of Khanthong Wattanapradit[10], who found that external motives caused by a person called Kalyanamitra play an important role because their behavior is exemplary in keeping the 5 precepts, which is reflected in external qualities are appearance, tone of voice, verbs, gestures, called cleanliness of body, speech, which can inspire others to want to know, want to get closer. Belief in the basis of the individual requires a learning process that

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emphasizes the belief in karma. The results of karma or action that will motivate people to keep the 5 precepts because there is a purpose in life that is in the way. Belief in hell or heaven is an internal motivation that works for those who have faith.

In modern times, motivation by pointing out the consequences of causal actions, hell and heaven can occur in the present moment, as a result of their actions will be recognized and motivated for those who have more modern ideas for building a society, community or village. Rituals 5 can only happen if the people who practice the 5 precepts combine the power to persuade the members to live together, starting from the family to build their families into families. Symmetry with the 5 precepts as the basis for living and trying to persuade or persuade others to see the importance of keeping the 5 precepts with loving-kindness in fellow human beings, which is the practice of life according to the teachings of the Buddha. Teach the ultimate goal in human life is to reach happiness, peace or Nirvana with the first step is to maintain the 5 precepts and have a strong faith in Triple Gem [11].

VII. BODY OF KNOWLEDGE FROM RESEARCH

From the study of the concept and principles of the strategic development of an integrated Buddhist society for sufficiency on the basis driven by the civil state was shown in Fig.2.
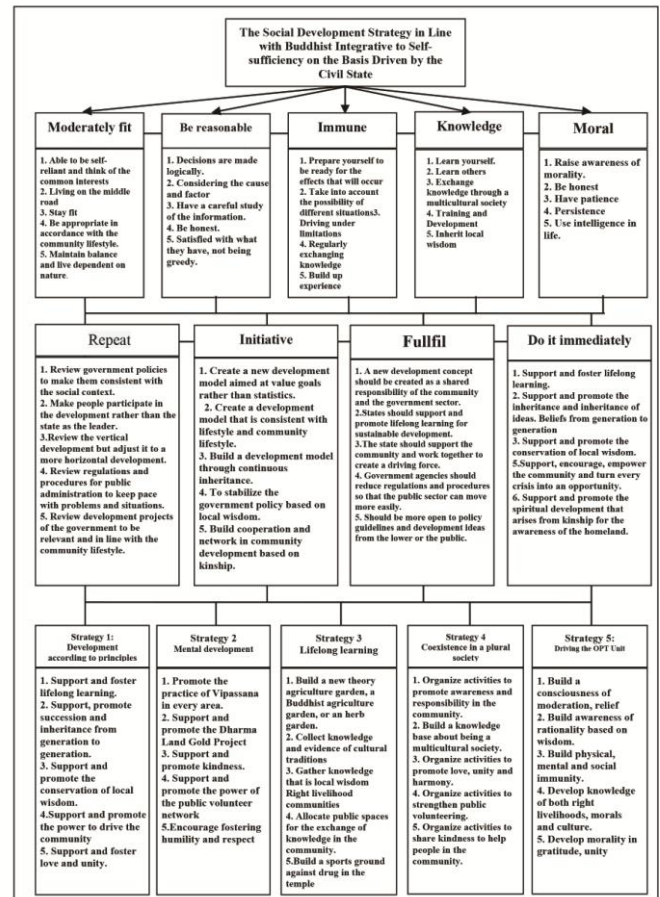
Fig. 2 Boy of Knowledge from research

VIII. RECOMMENDATIONS

A. Recommendations for Policy

1) The strategy for the development of an integrated Buddhist society for self-sufficiency on the basis driven by the civil state must have a mission to improve, develop, drive, develop and encourage research agencies to use the results in organizational development.

2) Should support and encourage the spiritual development that arises from kinship to the consciousness of the homeland.

B. Recommendations for future research

1) Buddhist integrated strategies should be studied to link the community way of life based on the grounded economy to community enterprises.

2) Should study the strategy of economic development, the foundation for development based on Buddhist ethics according to Buddhism.

CONCLUSSION

From the figure of knowledge, it can be seen that in the development of an integrated Buddhist society for sufficiency on the basis driven by the civil state, there are 5

strategies which are 1) Development strategy according to the principles of practice (eating, rituals, prayers), 2) Mental development strategy, 3) Lifelong learning strategies, 4) Strategies for coexistence in a multicultural society, and 5) Strategies for driving the public training unit in Prachuap Khiri Khan (OPT). Development in accordance with the principles of driving the public training unit in Prachamtambon (OTP) has the following indicators: 1) the number of projects / activities that have been promoted, and 2) the percentage of the number of participants.

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COVID-19 PANDEMIC EXPERIENCES OF FILIPINOS: BASIS FOR THE DEVELOPMENT OF A COPING PROGRAM

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Abstract

The Luzon lockdown due to the Covid-19 pandemic brought varying reactions, emotions and actions to mankind. Fear, uncertainty, and anxiety were experienced by everyone. Only the frontliners were allowed to go out, while everybody was advised to stay home. This research explored and compared the coping strategies of Filipinos across gender and generations to come up with a coping program to overcome the effects of the pandemic. One-hundred males and one-hundred females with 50 individuals from each generation participated in the survey and were interviewed online during the lockdown. Analysis of their response showed that their coping strategies were composed of five-psychological-spiritual coping strategies; three-economic-political coping strategies; and three-social coping strategies. The psychological-spiritual coping strategy of "praying and keeping in mind to ask God to end Covid-19 pandemic so that people will not suffer" was the foremost coping strategy of both male and female Baby Boomers, Generation Y as well as female Generation X and Generation Z respondents; but it vary among the male Gen X and Gen Z. Significant difference was established between one item of the psychological-spiritual coping strategies and generation category; while no significant difference

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was established between the coping strategies and gender of the respondents, an indication that male and female equally needs the proposed coping program **"Tara, Usap Tayo, CASama Mo Ako-SBS Psych Aid",** where various programs are continuously implemented in collaboration with other offices of the university, for the stakeholders from various sectors, university-wide and nationwide.

Keywords: Covid-19, Coping Strategies, Gender, Baby Boomers, Gen X, Gen Y, Gen Z, Lockdown

INTRODUCTION

In the Philippines, Luzon was placed under lockdown due to the Covid-19 pandemic starting March 17, 2020 until last week of May 2020. The pandemic brought varying reactions and actions to the Filipinos. Feelings of fear, uncertainty, and anxiety; and acts such as panic-buying, alcohol and sanitizer hoarding and committing of crimes became prevalent among the individuals during the lock down. Students and employees were refrained from going to school and work. Only those who are working as frontliners were allowed to go out. Various checkpoints, manned by men in uniforms and health-workers, are seen everywhere. Some students and workers are stranded in their boarding houses and dormitories. In short, nothing seems normal anymore. These drastic change brought about by the Covid-19 pandemic were experienced all over the world and it affected everyone physically, financially, mentally, emotionally and even environmentally. Thus, it became a growing concern among counselors and other mental health professionals to come up with solutions to ease the effects of the Covid-19 pandemic.

An individual who experienced fear, anxiety, stress and other negative emotions and behaviors may react positively or negatively. The tendency for the individual to cope with the situation is a normal reaction. Lazarus and Folkman (1984), one of the pioneers of coping theories, defined it as "constantly changing cognitive and behavioral efforts used to manage specific external and internal demands which are taxing or exceeding the resources of the person". This definition entails five (5) factors. First, coping involves spending mental energy

in a way that can reduce stress. Second, whether conscious or subconscious, coping mechanisms' goal is to solve problems and return to homeostasis. Third, coping strategies can be positive or negative, depending on whether they increase or reduce mental wellbeing. Fourth, coping is dependent on personality patterns and perceptual experiences; and fifth, the strategies one chose to adapt to a situation is highly individualized. Coping is never the same for two people, although everybody needs to cope with a certain situation that an individual experienced such as the Covid-19 pandemic.

Every individual possess varying characteristics, whether it is from the perspective of gender or generation. In an article written by Jerabek (2017), he compared the coping styles of individuals from various generational groups. It was revealed that younger people are more likely to resort to distraction to cope with difficulties in their life. Furthermore, they stated that both Baby Boomers and Generation X individuals use healthy strategies. Their top 5 stress management tactics includes Problem-Solving, Positive Cognitive Restructuring, Negotiation, Information-seeking, and Emotional Regulation.

The strength and weakness of each generation was described in the website of getsmarter.com. The strengths of Baby Boomers include being workaholics; committed to their roles; good team players; and excellent mentors; while their weaknesses were their preference for structure and discipline, their less inclination to welcome change; their being competitive and their need for recognition and rewards to keep them motivated; and they are the least tech savvy of all generations. The strengths of the Generation X were being the best overall workers; committed to juggling work with family time; they favor work-life balance in an organization; and they are considered to be the biggest revenue generators; while their weaknesses include their less inclined to say something if they disagreed on something; and they value being able to do things quickly. The strengths of Generation Y were being the most independent; concerned with ethics and the social responsibility; they have grown up sourcing information; and create their own processes rather than being told what to do; while their weaknesses include being not interested in teamwork; they do not have strong work ethic; and impatient. The Generation Z's

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strengths were being tech competent; able to pick up new developments quickly; ambitious; natural entrepreneurs; and can multitask using up to five screens at once; while their weaknesses are being cynical; more realistic outlook over the idealism; and they are very reliant on technology to solve problems.

In terms of gender, Endler and Parker (1994) have found that women tend to use coping strategies that are aimed at changing their emotional responses to a stressful situation, whereas men use more problem-focused or they utilized instrumental methods of handling stressful experiences.

Guided by the above information on the characteristics of the four generations and the experience of the Filipinos during the lockdown, the researchers examined the respondents' coping mechanisms to come up with a coping program that could be useful for the individuals who experienced the effects of the Corona Virus -19 (COVID-19) pandemic.

Objectives

1. To describe the coping strategies of the respondents across generation and gender .
2. To establish the significant differences in the coping strategies of the respondents across generation and gender.
3. To come up with a Covid-19 pandemic coping program that is useful for the individuals across generation and gender.

Hypothesis

There is no significant difference in the coping strategies of the respondents across generation and gender.

METHODS

This research was a qualitative study that examined the coping strategies of individuals from four generations and according to their gender. The Covid-19 experience was new to the

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respondents, thus their response in terms of coping was also new. The coping mechanism theory of Lazarus and Folkman (1984) was used as guide by the researcher. Data gathering was conducted through the use of online survey using Google forms, supported by interviews through messengers and text messaging. Included in the Google form survey was the informed consent and information about data privacy law of which the respondents agreed upon answering the questionnaire. The researcher forwarded the survey questionnaire to individuals through their social media friend's list, and asked them to forward the survey questionnaire to other individuals. Snowballing technique was employed until the total number of respondents was reached, which was 50 respondents (25 male and 25 female) from each generation (Baby Boomer, Gen X, Gen Y and Gen Z). The survey questionnaire contained instructions for the respondents to enumerate the activities that they did to cope during the lockdown due to the Covid-19 pandemic from March 17 to May 25, 2020. Analysis of data was done using frequency, rank and Analysis of Variance test.

RESULTS AND DISCUSSIONS

1. **Profile Characteristics of the Respondents in terms of Generation Category and Gender**

Table 1. Distribution of the Respondents According to their Gender and Generation

Gender	Generation Category				Total
	Baby Boomer *(54 to 72 Years Old)*	Gen X *(39 to 53 Years Old)*	Gen Y *(24 to 38 Years Old)*	Gen Z *(6 to 23 Years Old)*	
Female	25	25	25	25	**100**
Male	25	25	25	25	**100**
Total	**50**	**50**	**50**	**50**	**200**

The number of respondents by gender and generation was equally divided. From the total of 200 respondents; 100 were male and 100 were female; and 50 respondents from each generation of baby boomers, generation x, generation y and generation z, which is divided into 25 males and 25 females. This sampling technique was used hence the variables gender and generation was used as basis for comparison of their Covid-19 pandemic experiences and coping

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strategies. Convenience sampling was used in obtaining the number of respondents from each generation and gender. The categorization used to identify the respondents from the four generations was taken from careerplanner.com. Baby Boomers were those who were 54 to 72 years old; Generation X were those whose age was 39 to 53 years old; Generation Y also known as Millennials or Next Gen were those whose age was 24 to 38 years old; and Generation Z also known as iGen were those who were 6 to 23 years old. In this research, the age of Gen Z was limited to 18 to 23 years old, hence, parental consent will be required if the respondent is below 18.

2.1 Coping Strategies of the Respondents

Table 2.1 Categories of the Identified Coping Strategies of the Respondents

Coping Strategy	Number of Identified Strategy	Rank
Psychological-Spiritual Coping Strategies	5	1
Economic-Political Coping Strategies	3	2
Social Coping Strategies	3	3
Total	**11**	

The qualitative analysis of the respondents' coping strategies revealed that they used eleven (11) coping strategies during the Covid-19 pandemic lockdown. The coping strategies were: five (5) psychological-spiritual; three (3) economic-political; and three (3) social coping strategies. The specific statements of the coping strategies in the identified three factors was presented and described in Table 2.2.

Table 2.2 Items of the Coping Strategies of the Respondents according to their Generation and Gender

Coping Strategies	Baby Boomers		Generation X		Generation Y		Generation Z	
	F	M	F	M	F	M	F	M
Psychological-Spiritual Coping Strategies	**n**	**n**	**n**	**n**	**n**	**n**	**n**	**n**
1. I prayed and always keep in mind to ask God to end the Covid-19 pandemic so that we will not suffer.	**24**	**24**	**23**	19	**24**	**22**	**22**	18
2. I become sad and anxious about news on the death toll because of Covid-19 pandemic; so I offered prayers for them.	23	21	19	18	22	19	21	13

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3. I amused myself in order not to get depressed; my daily routine was eat, sleep, watch TV, surf the internet/play online games.	23	21	16	17	19	21	20	**20**
4. I kept myself busy, by cleaning the house and my backyard so that I won't think of Covid-19.	17	19	18	16	18	15	15	10
5. I stayed at home and I got bored; I asked God why Covid-19 pandemic happened.	15	16	10	**21**	14	18	19	16
Total	**82**	**81**	**69**	**73**	**78**	**76**	**78**	**62**
Economic-Political Coping Strategies								
1. I made my vacation productive by cultivating vegetables in my backyard/ I grow different plants and earned some money by selling them.	17	19	18	16	18	15	15	10
2. I released my anger by ranting about politicians who are not helping their constituents; and I got pissed off with news about the corruptions of local government officials everywhere.	9	9	9	7	14	9	11	9
3. I joined people who went panic buying on alcohol, sanitizers, and groceries that's why supplies and stocks in groceries and supermarkets run out.	7	10	9	10	11	8	7	7
Total	**44**	**51**	**48**	**44**	**57**	**43**	**44**	**35**
Social Coping Strategies								
1. I bonded with my family at home while we all stayed at home together.	20	20	22	15	17	15	19	14
2. I posted my rants and frustrations on social media about what I heard around me.	5	10	5	5	6	6	9	6
3. I get in-touch with friends/family members who got stranded somewhere else and were not able to go home to their families.	5	6	5	7	8	9	6	5
Total	**40**	**48**	**43**	**36**	**41**	**40**	**45**	**33**

The coping strategies of the respondents during the lockdown due to Covid-19 pandemic were categorized as psychological-spiritual coping strategies, economic-political coping strategies and social coping strategies. The respondents provided multiple responses. Of the eleven coping strategies, their topmost coping strategy was psychological-spiritual, specifically the item which states that "they prayed and always kept in their mind to ask God to end the Covid-19 pandemic, so that people will not suffer". This item was the rank 1 answers of both male and female Baby Boomers and Generation Y; and female Generation X and Generation Z. Only male Generation X and Generation Z did not consider this as their first coping strategy during the pandemic. The Philippines is known as a Christian country which means most Filipinos are devoted in their religious beliefs including their faith in God.

The male Generation X respondents' topmost coping strategy was "Confined themselves at home and felt very bored; and asked God why Covid-19 pandemic happened"; while male

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Generation Z's topmost coping strategy was "Amused themselves in order not to get depressed because of the pandemic; their daily routine was stayed at home, eat, sleep, watched TV and surf the internet/play online games". According to Jerabek (2017) younger people are more likely to resort to distraction to cope with difficulties in their life, thus male members of Generation Z preferred to cope by watching television and surfing the net or playing online games to distract them from worrying. Relying too much on technology to solve problems was considered as weakness of the Gen Z as mentioned in the review of studies.

On the other hand, the last in the list of the coping strategies of the respondents was the social coping strategy of "Getting in touch with their family who got stranded in another place and away from them". This was their least coping strategy because most of the respondents' families were together before the lockdown was enforced in their respective municipalities and cities.

3. Comparison of the Significant Differences in the Coping Strategies of the Respondents across Generation and Gender

3.1 Significant Difference in the Coping Strategies and Generation

Table 3.1.1 ANOVA for the Significant Difference in the Coping Strategies and Generation

Coping Strategies *Generation	F	Sig.	Interpretation
Psychological-Spiritual Coping Strategies	1.702	.303	Not Significant
Economic-Political Coping Strategies	.908	.512	Not Significant
Social Coping Strategies	.305	.821	Not Significant

The computed F-values for the three coping strategies, namely psychological-spiritual (F=1.702); economic-political (F=.908); and social (F=.305) were not significant at .05 level. Although, examining the results of the specific statements of the three coping strategies as presented in Table 3.1.2, a significant difference was established between the generation category of the respondents and the psychological-spiritual coping strategy of "Amusing themselves in order not to get depressed because of the pandemic; their daily routine was stayed at home, eat, sleep, watched TV and surf the internet/paly online games" (F=9.296). The same item was the topmost coping strategy of male Generation Z respondents, while the rest did not

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consider it as their first coping strategy. This result further explained the characteristics of male Generation Z individuals, where it was believed that one of the strength of Generation Z individuals was their being technology competent; they are very much attached to various technologies such as televisions, computers and the internet.

Table 3.1.2 ANOVA for the Significant Difference in the Items of the Coping Strategies and

Generation Category

Coping Strategies *Generation	F	Sig.	Interpretation
Psychological-Spiritual Coping Strategies			
1. I prayed and always keep in mind to ask God to end the Covid-19 pandemic so that we will not suffer.	1.481	.347	Not Significant
2. I become sad and anxious about news on the death toll because of Covid-19 pandemic; so I offered prayers for them.	.991	.482	Not Significant
3. I amused myself in order not to get depressed; my daily routine was eat, sleep, watch TV, surf the internet/play online games.	9.296	.028	Significant
4. I kept myself busy, by cleaning the house and my backyard so that I won't think of Covid-19.	2.222	.228	Not Significant
5. I stayed at home and I got bored; I asked God why Covid-19 pandemic happened.	.098	.957	Not Significant
Economic-Political Coping Strategies			
1. I made my vacation productive by cultivating vegetables in my backyard/ I grow different plants and earned some money by selling them.	2.222	.228	Not Significant
2. I released my anger by ranting about politicians who are not helping their constituents; and I got pissed off with news about the corruptions of local government officials everywhere.	1.081	.452	Not Significant
3. I joined people who went panic buying on alcohol, sanitizers, and groceries that's why supplies and stocks in groceries and supermarkets run out.	1.175	.424	Not Significant
Social Coping Strategies			
1. I bonded with my family at home while we all stayed at home together.	.701	.599	Not Significant
2. I posted my rants and frustrations on social media about what I heard around me.	.706	.597	Not Significant
3. I get in-touch with friends/family members who got stranded somewhere else and were not able to go home to their families.	4.714	.084	Not Significant

The analysis of variance to test the significant difference in the coping strategies of the respondents according to their generation revealed that significant difference was established for one item of the psychological-spiritual coping strategies (F=9.296) of the respondents and their generation category, the hypothesis of no significant difference for this coping strategy was rejected. The male Generation Z respondents preferred to cope from the effects of the pandemic during the lockdown by keeping themselves amused so that they will not feel depressed because of the pandemic; they stayed at home, eat, sleep, watched TV and surfing through the internet

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became their routine; while most of the respondents from the Baby Boomers, Generation X, and Generation Y preferred to cope by praying and keeping in mind to ask God to end the Covid-19.

Table 3.2.1 ANOVA for the Significant Difference between Coping Strategies and Gender

Coping Strategies *Gender	F	Sig.	Interpretation
Psychological Coping Strategies	.541	.490	Not Significant
Economic-Political Coping Strategies	1.376	.285	Not Significant
Social Coping Strategies	.781	.411	Not Significant

No significant difference was established between the male and female respondents' psychological-spiritual coping strategies (F=.541); economic-political coping strategies (F=1.376); and social coping strategies (F=.781). The hypothesis of no significant difference was accepted. This finding was supported by the result in Table 3.2.2, which shows that no specific item-statements in the three coping strategies of the respondents differed in terms of the respondents' gender.

Table 3.2.2 ANOVA for the Significant Difference in the Items of the Coping Strategies and Gender

Coping Strategies *Gender	F	Sig.	Interpretation
Psychological Coping Strategies			
1. I prayed and always keep in mind to ask God to end the Covid-19 pandemic so that we will not suffer.	2.941	.137	Not Significant
2. I become sad and anxious about news on the death toll because of Covid-19 pandemic; so I offered prayers for them.	3.379	.116	Not Significant
3. I amused myself in order not to get depressed; my daily routine was eat, sleep, watch TV, surf the internet/play online games.	.021	.890	Not Significant
4. I kept myself busy, by cleaning the house and my backyard so that I won't think of Covid-19.	1.000	.356	Not Significant
5. I stayed at home and I got bored; I asked God why Covid-19 pandemic happened.	2.195	.189	Not Significant
Economic-Political Coping Strategies			
1. I made my vacation productive by cultivating vegetables in my backyard/ I grow different plants and earned some money by selling them.	1.000	.356	Not Significant
2. I released my anger by ranting about politicians who are not helping their constituents; and I got pissed off with news about the corruptions of local government officials everywhere.	3.076	.130	Not Significant

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3. I joined people who went panic buying on alcohol, sanitizers, and groceries that's why supplies and stocks in groceries and supermarkets run out.	.042	.844	Not Significant
Social Coping Strategies			
1. I bonded with my family at home while we all stayed at home together.	4.200	.086	Not Significant
2. I posted my rants and frustrations on social media about what I heard around me.	.118	.743	Not Significant
3. I get in-touch with friends/family members who got stranded somewhere else and were not able to go home to their families.	.458	.524	Not Significant

The result of no significant difference in the coping strategies of the respondents across gender revealed that similar program of coping strategies for male and female can be designed as a result of this study. As mentioned in the literature reviews, among the top 5 stress management tactics of the four generations includes Problem-solving, Positive Cognitive Restructuring, Negotiation, Information-seeking, and Emotional Regulation. It means male and female individuals may equally apply strategies depending on their situations and not necessarily on their gender.

4. Proposed Program to Cope with the Effects of the Covid-19 Pandemic

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Program to Cope with the Effects of the Covid-19 Pandemic

Areas of Concern	Objectives	Proposed Activity/ Action	Remarks
Psychological	✓ To provide a venue for the individuals where they can open up and seek help regarding their emotional and psychological needs ✓ To keep away negative thoughts while at home	• "Tara, Usap Tayo, CASama Mo Ako-SBS Psych Aid" on Face Book was organized and maintained by the Psychology Faculty of the SBSD-CAS of NEUST. The conduct of various psychological, social, spiritual, even economic and political activities in collaboration with concerned departments/ offices were done regularly • Provide Virtual Psychological First Aid to frontliners, students, parents and teachers • Become a "Plant Tita" or "Plant Tito"	➢ Implemented since April 2020 and still functioning with over 500 individuals/ clients served online ➢ Webinars on PFA and Mental Health and Spiritual Wellness was regularly conducted in collaboration with other Departments (GAD, GCO, Health Care Unit, UTD, MRSUP, CAS Extension, Office, etc) ➢ Many faculty, staff, students and other individuals were encourage to become a plant enthusiast
Spiritual	✓ To uplift the spiritual well-being of the individuals during this trying times of pandemic where social and mass gathering is not permitted	• Conduct of Mass, Thanksgiving Celebrations via online live streaming where everyone interested can attend • Organize Prayer Peer Groups and pray together virtually or at home with physical distancing	➢ Implemented in NEUST; on-going prayer activities (*Oratio Imperata*) are continuously implemented (8 AM, 12 Noon, 3PM COVID-19 prayers are aired and heard all over the campus) everyday
Social	✓ To boost the morale of frontliner-friends and family members who are at a high-risk in this time of pandemic ✓ To keep the body physically healthy while interacting with social groups virtually	• Get in touch with frontliner-friends and family members through social media and provide moral support to them • Send inspiring text messages, verses, quotes to frontliner-friends and family members to lift and cheer them up • Organize online/virtual Zumba activities • Join "Tik Tok Challenge" or competitions online • Physically Distance one's self but not to Socially Distance	➢ "Tara, Usap Tayo, CASama Mo Ako-SBS Psych Aid" helps frontliners continuously ➢ Regular Zumba activities with physical distancing was done by the SBSD of NEUST, done every after office hours of Wednesday ➢ Organized "Tik Tok" Challenge Competions
Economic	✓ To provide means or avenue for the individuals to become productive at home	Provide webinars and trainings on: - Integrated Pest Management, for those who are good with gardening and vegetable growing. - Small Entrepreneurship Programs (online selling of products to earn income while at home) - Food processing business - Pastry making and baking	➢ Constant Webinars are given by NEUST to help individuals become economically productive during the times of pandemic ➢ The researcher grows her own vegetables and fruits in the backyard and encouraged others by posting on social media and sharing her harvests to friends and workmates
Political	✓ To lessen/minimize political anxiety of the individuals	• Communicate with individuals to listen to reliable news and don't rely on fake news online. • Be in one with the government in finding solution to the crisis that is experienced by the human race • Find ways to help in the programs of the Government to recover not only from the Covid-19 but with the other concerns of the country	➢ Provided information to individuals regarding legit government websites and warn them about websites that caters for fake news or trolls

Conclusion

There are two-hundred individuals who participated in the study; 50 respondents from each generation of Baby Boomers, Generation X, Generation Y and Generation Z; and each generation were divided into 25 females and 25 males. There were 11 coping strategies of the respondents which are composed of five psychological-spiritual; three economic-political; and three social coping strategies. The psychological-spiritual coping strategy of "praying and keeping in mind to ask God to end Covid-19 pandemic so that people will not suffer" was the top most coping strategy of male and female respondents from Baby Boomers and Generation Y; and female respondents from Generation X and Generation Z, but not to the male Gen X and

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Gen Z.   Significant difference was established between one item of psychological-spiritual coping strategies of the respondents and their generation category; while no significant differences were established between the coping strategies of the respondents and their gender. A coping program to cope with the effects of the pandemic was designed as an output of this study. Part of coping program was the **"Tara, Usap Tayo, CASama Mo Ako-SBS Psych Aid",** where various programs in collaboration with different departments and offices of the university are continuously implemented for stakeholders from various sectors, university-wide and nationwide.

Recommendation

The proposed coping program is recommended for individuals who are experiencing the identified issues and concerns due to the Covid-19 pandemic. The coping program **"Tara, Usap Tayo, CASama Mo Ako-SBS Psych Aid",** where various activities are continuously implemented for stakeholders from various sectors, university-wide and nationwide should be implemented and replicated by other institutions in order to reach out to as many individuals as possible who needs psychological, social, spiritual and mental health support.

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The Way of Gambling: Sources of Government Revenue or Disaster of The Public Sector

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Abstract—This article would like to reflect the history of the Thai gambling industry. The nature of gambling that is hidden in tradition, opinion of Thai society towards gambling. Moreover, the effects of gambling that the state allows and does not allow through literature, law, Buddhist principles, the King's philosophy and the theoretical concept of gambling, and the theoretical concept of gambling.

The results of the synthesis of the data showed that gambling has been in conjunction with Thai society for a long time. The context and process of gambling in Thai society can take many forms. It will depend on the context of the environment, the law, and the government, etc. Their views and attitudes towards gambling can be divided into two groups: the one that sees gambling as a pleasure. It has created a social space to legitimize gambling in various forms, such as gambling for gambling. The hidden gambling tradition gambling of the types permitted and prohibited by the government, etc. Furthermore, the second group viewed gambling as a danger to society. It is a terrible thing that the state must restrict it from society. This concept is primarily connected and related to religious and legal principles.

From the information found, I believe that gambling is a huge source of income for the government, even though the state knows that it is mescaline. But cannot cancel the business, that is, the deadly poison or the public's silent threat that is submitted to the government.

Key Words—*Way of Gambling, Sources of Government Revenue, Disaster of The Public Sector.*

I. INTRODUCTION

It is said that in the history of the human world has been playing gambling continuously and for a long time until now. By far, the earliest gambling is dice gambling or throwing dice in a competition. By playing a game called "Astragali" takes place in the Egyptian era of 3,500 years BC. Subsequently, gambling models have been developed that are different according to the era and according to the popularity of people of different races. [1] For Thailand, gambling is a problem that has been long coupled with Thai society. Because Thai people have fun-loving habits and a popular gambling practice. Also, gambling has penetrated groups of people of all levels, whether rich or poor, often enjoy a comprehensive variety of gambling forms. Whether it is playing cards, underground lottery betting, or even online gambling in various forms, which is becoming popular today. [2]

In the context of Thai society with a diversity of sexes, occupations, qualifications, maturity, and lifestyles Inevitably, there will be different ways of

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thinking, attitude, and behavior in the context of something, such as the current opinion of gambling. Some people's views on gambling justify that "People who gamble Not a bad person If it is for fun without any disparities involved, "it can be seen that this concept has a positive effect on gambling. When this thinking happened, it was distributed among many, making many people unaware or invisible to various forms of social dangers. That will follow, which is the cause of gambling.

When considering the types of gambling played in the past year 2019, it was found that Thais preferred to play four types of gambling, namely (1) Government Lottery, which is most popular to play 22.749 million people (2) underground lottery 17.737 million people (3) gambling on cards of 4.446 million people and (4) betting on football predictions of 3.464 million people. As for gambling addiction behaviors, it was found that 17.20 percent admitted that they were addicted to gambling, while the other 14.10 percent were unsure if they were addicted to gambling or not. When calculating the estimate According to the population database aged 15 years and over, when considering the database compiled by the civil registration statistical system, the Department of Provincial Administration, Ministry of Interior for the year 2019, some gamblers admit that they are addicted to gambling. Total of 5,230 million people, while there are 4,291 million gamblers who are unsure whether or not. [3]

Gambling is a social phenomenon that has existed since prehistoric times and continues to date. In Thai society, we often see gambling in general. This is because gamblers have various easily accessible ways of gambling and are integrated into all levels of society. The relationship of gambling lies in the Thai way of life, both in the economic, social, and cultural systems. Temple events, annual events, and funerals, etc. Some types of gambling have youth in the community get involved in gambling to monitor parents into community areas that are open for

gambling. The situation reflected youth in the midst of an environment and conditions that would easily influence youth into the circle of gamblers for the future. [4]

The villagers' views on gambling are both positive and negative. Villagers with a positive view commented that "One part of the community gambling is linked to a way of life. Ancestral cultures and traditions such as cockfighting are expressions of fighting and not giving up. In addition, gambling is a sport and recreation that can relieve distress, exchange, and conversation among people in the community, and help some people earn income from the community gambling activities, for example Food-to-order trade Instant food alcoholic beverages and other facilities etc. " The group with an opposing view that has commented that Gambling is a punishment. A way of decay and should be avoided because immorality, tradition, and illegal are things that infuse people. Often gamblers or their network of gamblers refer to tradition and culture as an excuse for gambling. They were creating interests for themselves and their companions as a hidden tool behind them, which is backed by capitalists and law enforcement authorities. " Therefore, if considered objectively during the argument,gambling has both you and the penalty, which is like a two-edged sword.

II. THE CONCEPT OF GAMBLING

From the study of the social criticism of gambling in the past, there are often many people who like to critique religious principles on "Is gambling ethical or not?" One of the pieces of evidence found in Buddhist literature shows that the Buddha does not allow monks to gamble. However,it did not apply this law to the public and reminded me of the six behaviors that only cause deterioration in people's lives. This consistsof the Regular drinking of alcohol, Nightlife, Playboy, Gambler, Gangster, and Bummer. On this issue, I would like to present the concept of gambling into

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four issues: 1. The study of gambling in the past of society through the perspective of Thai literature; 2. The current situation of gambling in Thai society 3. Gambling in the online system, and 4. Causes of gambling as follows.

1. A study of gambling in the past of society through the perspective of Thai literature.

From the study of gambling in the past in Thai society through a literary perspective, it is found that gambling is prohibited. It appears that both laws and morals prohibit people from engaging in and gambling. However, despite the religious law and doctrine,which prohibits gambling much, gambling still appears in Thai society without any signs of disappearing. Besides, there are still more techniques and methods of gambling. When looking at Thai literature from the Sukhothai period until the reign of King Rama VI, it was found that there was a large amount of literature on gambling on various issues. Historical evidence suggests that gambling first originated in China and then spread to other countries. In India, there is evidence that when the modern era, The Lord Buddha has enacted the punishment of gambling in the fourth practice of Practice, "Gambling is a punishment. It is a way of deterioration. " The authors view that if you look at the data, it shows that the source of the civilized day out, namely China and India, has been around for gambling.

From searching for literature from the Sukhothai period, there is no clear information on gambling in Sukhothai society. There is only evidence that the poet has described gambling in many literary subjects, such as the wisdom of the chiangmai monk wrote around 2000-2200 with a total of 50 literary inscriptions in Pali and is a style of writing that imitates the literature written by the Lankan monks. [5]

However, in the Thonburi era, King Taksin the Great Instead, the soldiers were allowed to gamble after the war was over, and the public was allowed to gamble on public holidays. (the important day of the nation) without breaking the law and breaking the law of religion.

The literature about Adonis, which was written by King Rama 1, summarizing the issue that "Animals are brought to fights, and there are different forms of gambling. Cheer for fun "and the law enacted three emblems (3 symbols) that appear gambling. "Government officials and people do not comply with religious ordinances. Brought to turn to gambling and drinking most of the alcohol. And there is a punishment for the violators, which is to whip wicker Tattooed gambling pictures on the face And dismissed from the government immediately without parole " [6]

The era of King Rama III had a severe economic crisis. People hid the money under the land Money is not used to spend in the market system, so economic advisors (Chinese) proposed a policy to stimulate the economy, namely opening a casino and allowing people to buy government lottery. [7] Later, in King Rama VI's reign, the public was strictly prohibited from gambling on 1st April 1916 but still found illegal gambling in various places. [8]

2. Gambling patterns in the present situation of Thai society.

Under section 4 of the Gambling Act, B.E. 2478, Gambling is divided into two categories: absolute prohibited betting and licensed betting. Explain that even though gambling can have an impact on the player and the social context. The government or rulers are also allowed to allow people to gamble. [9] The authors view such methods and processes that it is evident that gambling is an income-generating matter, such as the government lottery, which generates vast incomes and expenditures to huge fortune-telling players. Overall, the repeal of the underground lottery crackdown is very sensitive and sensitive to people's feelings in Thai society.

3. Online gambling.

In today's world society, the online gambling process has become widely popular both within the country and abroad. For Thailand, online gambling through information technology media in various forms. These are still illegal, and there is no legal

process or government policy to deal with this matter. Moreover, there is also a widespread hacking of online gambling. it can be said that "Any gender can play online gambling, age, every day" ever, especially online football betting. Online casinos and online horse racing betting and which tends to expand more and more in Thai society. In foreign countries, online gambling management policies have been established into two approaches: a policy that does not allow online gambling to be a legitimate business such as the United States, Russia, Greece, and Pakistan, and a policy that allows online gambling. Make online gambling a legitimate business such as England, Gibraltar, and Malta. [10]

4. The Causes of gambling.

The problems of gambling have come together with people in Thai society with a long history. The context and process of gambling in Thai society can take many forms. This will depend on the context of the environment, the law, and the government, etc. Their views and attitudes towards gambling can be divided into two groups: the first group viewed that gambling is the creation of happiness, contentment, and entertainment. It has created a social space to legitimize gambling through various forms, such as gambling for gambling. Hidden gambling traditions government-approved gambling is not guilty and not a bad thing, etc. Moreover, the second group viewed gambling as a punishment. Harmful to society is a bad thing it is against religious doctrine. The government must be restricted from society. This concept is primarily connected and related to religious and legal principles. [11]

III. BUDDHISTCONCEPT OF THE PUNISHMENT OF GAMBLING.

Punishment for gambling in Buddhism the Buddha has said six things: 1. The person who wins gambling creates grief for loser 2. The person who loses gambling will want to get money back 3. Lose money suddenly 4. They were breaking the law of the country 5. Lack of trust from colleagues, and 6. No one wants to marry. There are six ways to prevent penalties from gambling: 1. Abstain from drinking alcohol 2. Do not be a nightlife 3. Do not act like a playboy 4. Do not gamble 5. Have good companions, and 6. Diligence. Moreover, the research of Watchara Tanawong (2014) has studied "Measures for the prevention and control of gambling on the Internet" The research results were found that people enjoy gambling on the internet because of the advancement in information technology.

Furthermore, mobile phones can now be used to gamble,which causes gambling on the internet to be damaging in many areas such as the economy, education, religion, culture, etc.Therefore, society must help each other to solve problems. Incidentally, the 1935 Gambling Act applied to gamble on the internet did not work. Because there is a problem in defining gambling on the internet with low penalties and a lack of a clear online gambling regulator. Moreover, the researcher suggested that existing legal measures to suppress offenders, such as tax measures. Measures forbidding financial institutions from engaging in gambling-related transactions territorial liability measures to prosecute gambling websites in foreign countries. It has also suggested policy measures to prevent gambling on the internet, such as social measures. Measures to reduce and stop gambling measures for cooperation between government agencies measures to seek cooperation with the private sector check gambling sites and establish specific gambling regulators. If the aforementioned recommendations are followed, it is expected that internet gambling will be depleted Thai society.

IV. GUIDELINE FOR SOLVING GAMBLING PROBLEMS ACCORDING TO THE PHILOSOPHY OF THE KING.

Philosophy of the King is science born of the developer king. Those whose work is based on

science and economics principles are rational, educational, experimental, emphasizing education, learning, and participation as a key element by King Rama 9. He started by studying various subjects and began to conduct his experiments in the Dusit Palace. Then, the results of these experiments were extended to 6 study centers. It has been developed by adapting the experiment results to suit the local environment, lifestyle, and needs of the villagers in each area, because one theory cannot be applied everywhere. It must be deployed accordingly. Therefore, it is the reason why we have to "understand, access, develop" starting from "understand," that is, understand the local environment. How is the well-being of the people? What kind of culture is there and then "approached" by mingling with local people? Building trust then began to "develop" to be consistent with that area.

Her Royal Highness Princess Maha Chakri Sirindhorn said in 2011 that "The King's goal of development is 'Sustainable Development' to improve people's livelihoods. Without destroying the environment, people are happy considering geography, religion, race, and socioeconomic background. Although there are various development methods, developers must have love, care, responsibility. Moreover, respect for fellow human beings. Development is related to humanity and is a matter of the mind. The concept of monarchy aims to develop oneself, family, community, society, and country to have a sustainable shield. Earn money honestly, and it can be fine without the need for any income or gambling. The design thinking the King Rama IX's sustainable development consists of a 6-step process.

1. Empathize

"What are you worried about?" What is often asked when visiting citizens clearly shows the importance of local people first. Along with study and understanding,each area's social and geographic conditions reflect sociopathic and anthropological thinking.

2. Define

A solid understanding of the problem must work with the ability to see the relationship. To lead to identifying real needs at this stage, His highness shows an analyst and a systematic way of thinking.

3. Ideate

When identifying the problem with precision, alternative thinking can be done with a method of thinking like a scientist and an innovator that does not block the possibilities. With significant help is knowledge in various fields and further studies. He has already shown that if there is sufficient factor contributing to knowledge and determination, Humans can modify the weather to make it rain.

4. Prototype

One of the key elements of the design process is developing a "prototype" for transforming ideas into shape. Both test the initial idea and lead a practical test, and this process requires both technical research. Moreover, the thought of not giving up or it can be said that it is an inventor way of thinking We can see that the main principles of the development project Because the royal initiative is simplicity and reason, it means an opportunity to take the model to can be applied in different areas endlessly enough.

5. Test

When the prototype was obtained, the key to practical implementation is the do-it-yourself approach, which means applying it to a realistic, local environment with flexibility and practical results. Combined with the continuous improvement of the model with new knowledge to achieve real objectives. That is to improve the quality of life and well-being of people to be self-sufficient and sustainable.

It can say that land of Suvarnabhumi is a land with a monarchy coupled with a long history of the nation. Whenever the nation is in crisis, The King always thinks of solutions to problems to lead the nation to prosperity prosperous with international.

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King Rama IX said that "the development of the country is necessary must follow the hierarchy. The foundation must first be established, which is the sufficiency of the people using economical methods and equipment, correct according to academic principles. When having a solid, moderately ready, and practical foundation, Therefore, gradually build-up to the prosperity and higher economic status in the next order If focusing only on creating prosperity Raising economic status only quickly without giving action plans consistent with the state of the country and the people. There will be an imbalance in various matters, which can become a hassle and eventually fail" King Rama IX presented the philosophy of sufficiency economy for the first time at the graduation ceremony at Kasetsart University. On Wednesday, 18th July 1974, what did the King see before telling the people. The teachings of King Rama IX or as we call it. "Philosophy of the King," which encompasses royal ideas and philosophy. His royal speech is instruction and admonition to be conscious. Royal duties are principles of working his people. Furthermore, the royal ethics of King Rama IX throughout the past 70 years, which Thai people have embraced as a good example in their behavior. Including the government and civil servants has applied to the administration of state affairs to build a nation and develop the country in a balanced and sustainable manner.

V. THE METHOD OF PHILOSOPHY OF THE KING.

King Rama IX adheres to all three administration aspects: understanding, access and development in caring for his people. For that working principle, He applies to people, objects, society, environment, and culture, has depth, and has a royal project or other work that has been clearly illustrated. His focus was on human development, and saying "it must explode inside," that is, to strengthen the people in the communities we develop into to be ready for development. It is not bringing prosperity or people from outside society to the village community that has not yet had the opportunity to prepare. His highness uses the principle of "understanding, accessing, developing," that is, before doing anything, must have an understanding first understand the terrain understand people in various problems both in physical aspects, customs, and culture, etc.

Moreover, during the operation, we will have to make people who we are going to work with or work for him to understand us. Because if we understand him alone without him understanding us, the benefit would not have happened as we expected. Access is the same. When you know, the problem understands and then needs access to lead to action and when accessing it must do, however, make him want to reach us as well. Therefore, communication between the sender and the receiver If the first two things can be accomplished the issue of development will occur because when different parties understand each other. Each other wants to reach each other already. The development will be mutually agreed upon by both the giver and the receiver. Working holistically and thinking for work. The holistic approach is to look at things born in a complete system; everything has dimensions connected. Look closely at what happened and how to fix it.

VI. THE PROCEESS OF PHILOSOPHY OF THE KING.

The context and procedures of the philosophy of the King are as follows.

1. Understanding is comprised of 4 sub-Elements:
   - Use of available information
   - Use of empirical data
   - Analysis and research
   - Experiment until it actually works
2. Access is made up of 3 sub-Elements:
   - Exploding from inside means giving people or communities that go into development or work to

adapt to develop oneself. There was a need to develop himself first. It is not something that the government enters into forcing people or communities to do, which will not be sustainable. Therefore, His highness emphasizes people's development to allow people to change themselves first and then develop and change, which is access before development. It does not bring development without the public recognizing or recognizing the importance of development or change. This principle is consistent with the modern academic principles of change leadership and management, as John P. Kotter put it forward: change must make people aware of the urgent need for change. The vision must be communicated so that people can see a clear direction to change.

  - Understanding the target group, which is the people, what the people need before they work to understand the suffering, problem, and suffering of the villagers. To find further solutions

  - The creation of social intelligence is a vital part of reaching people. If people still lack understanding, they must create social intelligence for them to understand. Use the easiest way to communicate with people to build intelligence. His highness chooses to use a way of speaking that creates wisdom that is appropriate for the audience.

  3. Develop a royal initiative for that development; when he understands, approaches, then develops it, his highness has an important principle:

     - Self-starting

     - Self-reliance

     - Able to be a model for disseminating knowledge

His choice of areas where problems and hardships are developed serves as a model for people to see and follow. Even the most problematic areas can still develop well people should be able to follow through, learning from inspirational models for the development of themselves and the nation. Therefore, the method of understanding, access, and development is the monarchy method for sustainable development. And is the rule of the land fairly for the benefit of the people of Thailand truly

King Rama IX is the King who, in addition to the tenets of Dhotsapithrajadhammas, is also the King who is an exemplar in life and work for his people and other countries. Many people saw his intelligence. Moreover, have a great sense of respect and love for His Majesty the King. The concept or working principle of King Rama IX is very interesting that should be applied to the working life very much. If anyone wants to follow what you do, you can apply your work principles to be useful as follows.

  1. To do anything, one must study the information systematically. To bring that information to be practical, accurate, fast, and on target.

  2. To blasting from the inside means that if you do anything, you have to start with the people involved first, you need to build strength from the inside to understand and want to do. Not ordering others to do

  3. Solving problems from small spots, you should always look at the overall problem first, and then start working from small points before solving them one by one.

  4. Follow the sequence of steps. Begin by doing what is necessary first. Once this is accomplished, we begin to proceed with the next necessary things carefully and carefully.

  5. Any development must take into account the topography of that area. Moreover, sociology of personality traits as well as culture Each local tradition is different.

  6. Work holistically; use thinking for work. The holistic approach is to look at things born in a complete system; everything has dimensions connected. Look closely at what happened and how to fix it.

  7. Not sticking to texts when we do anything; we should work flexibly with that situation and condition. It is not just sticking to academic textbooks that we sometimes need to be consistent

with the natural, environmental, social, and psychological contexts.

8. Know how to save, simple, get the most benefit.

9. Make it easy. He invented, modified, improved, and modified the work. The country's development is simple and, most importantly, consistent with the living conditions of the people and the ecosystem as a whole.

10. Participation in his highness gave the public an opportunity for people or officials at all levels have come to express their opinions. acknowledging other people's opinions

11. Must seize common interests. King Rama IX remembers the interests of the public as necessary.

12. One-stop service, focusing on knowledge, love, unity, and cooperation by reducing gaps between related agencies.

13. Solving natural problems with natural resources.

14. Putting the truth in nature and the rules of nature as principles, practices for solving problems and improving unusual conditions into standard systems.

15. To accomplish any task, you must first cultivate your awareness. Value See the benefit of what to do.

16. The principle of King Rama IX towards Thailand's people is "giving" and "sacrifice." It is a good act, the well-being of the people.

17. Self-Reliance: To have the strength to sustain life, the next step is to develop people to live in society according to the environment and finally be self-reliant.

18. Making people able to live in a good position first and then expand to have the capacity to progress further.

19. Sufficiency economy: It is a way of living on the middle path to survive and sustain a stable and sustainable existence under globalization and various changes.

20. Honesty. Sincere with each other who are honest and pure. Even with little knowledge would benefit the public more than those who have much knowledge but without honesty and sincerity.

21. Working by happiness.

22. Starting a job or doing something that may not be ready requires patience and determination.

23. To creating harmony and reconciliation in society.

VII. CONTROVERSIAL ISSUES AND PERSPECTIVES

The perspective on gambling has both positive and negative aspects with an optimistic view claiming that part of gambling is linked to a lifestyle inheritance. Culture and traditions of ancestors, such as cockfighting in the governor's history even with the cockfighting sport, taking the state and the people as a bet As for the rocket festival, the people who are higher up will win. by getting the state and the daughters of the governor as a bet. Gambling is an expression of fighting and not giving up. Non-surrender to destiny besides that, gambling is a sport and recreation that can be relaxing. Is a dialogue area for people in the community including the creation of income from gambling in such as food-drink shops. and other facilities etc.

The negative view towards gambling has claimed that "gambling is catastrophic and should be avoided because it is immoral and illegal. For the most part, gamblers or their networks of gamblers often refer to tradition and culture as an excuse to gamble, with the benefit of themselves and their peers being a hidden tool behind them. Always which is backed by capitalists and law enforcement authorities. However, villagers see one of the biggest problems plagued by community gambling instate gambling and government officials' inaction. Mutual benefit between casino owners or gamblers and certain government officials, specific groups, or agencies.

Free gambling is one of the most sensitive public

issues for Thai society. Often governments or government leaders have ideas or policies that can be administered for economic benefit or control to reduce society's negative impact. Social reactions, both in the form of support and opposition, will erupt immediately. However, the arguments raised by each side in support of their opinions have never led Thai society to a solid conclusion about gambling. Even thoughgambling studies in Thailand, especially over the past ten years, have been carried out fairly widely and regularly, such as when there is a world-class soccer event Research center or various opinion survey agencies often come out to reveal analyses or surveys about football betting. These provide financial information such as estimates of the expected turnover limit during the tournament and reflect some social impact dimensions by providing information about groups of people likely to be involved in football gambling, for example.

Several studies also present interesting policy recommendations on the management of gambling. However, the use of the study results, referred to by those who advocate or oppose the legalization of gambling, is only applied following their opinion, such as those who advocate for economic benefits. The Objections will cite social issues (especially those involving children and youth) and suspicion of law enforcement by government officials, for example, making the reasons or excuses raised to support or refuse to gamble. It is a matter related to political, economic, social, and cultural issues in an elaborate manner. It appears in the form of an opinion arising from a personal view that chooses to receive only some information rather than an opinion arising from the actual academic thinking.

VIII.CONCLUSION.

Considering the context of gambling in Thai society from historical traces through literature and law, it can be seen that gambling is against morality, religion, and law. Some state rulers do not allow gambling, and the punishment is strictly prohibited. Some state rulers supported and allowed them to play freely. Some state rulers introduced economic stimulus policies through a gambling system. In other words, gambling is available in most states. A state authority creates gambling to benefit from managing the state or its interests in which the gambler is a prime customer. Nevertheless, if you look at the opposite point of view, gambling has always been the state's monopoly. The effects of gambling on society such as crimes, social perils, prevention, repression and social remedies. It is something that the rulers of the state know well.

Moreover, surprising are some of the state's policies and productivity, such as state-licensed gambling. Suppose asked if the state's governor knew that gambling had severe penalties on the people. Why do the rulers continue to do so? Why can't the state cancel and transcend? Suppose Thai society cannot accept the opening of a casino in the country. In that case, the author proposes that we create an experimental project designated as a casino for foreigners only, by choosing an area far away from the community and built as a comprehensive entertainment center. The state, as a public service manager, may joint venture with private operations. Then study the pros - cons. And then came to do a public hearing Doing so will be informed of the actual facts. Not just an estimate. However, if we allow a casino, the state should also have an organization that manages and educates gambling for Thais, which may be established as a committee in a state agency, such as the casino affairs standards committee. The committee for scrutinizing people who are gambling. Those who will gamble will be checked for history and qualifications first, such as age, income, criminal history, status, etc., to prevent gambling until the bankruptcy and not to think that gambling is for profit.

In addition, the state must protect low-income people or students without income. Not to enter the

state-owned gambling circuit In addition to preventing initially, the organization of remedies or counseling from people with gambling addicts because when the state has made gambling all the disadvantages arise, the state becomes the sole responsibility of the state. In short, when the state will provide a casino, it should also manage to maintain the disadvantages of the casino that arise later. In addition to that, one of the most dreadful aspects of state gambling is money laundering. We must organize a system to prevent state gambling from becoming a money laundering ground for illegal businesses. Therefore, the way of gambling is a source of income for the Thai state. Alternatively, is it a terrible disaster that the government has have been mescaline for a long time this answer must be in everyone's mind. The part of agreeing or disagreeing probably only you would be able to understand yourself the most. Besides, religious doctrine, monarchy, law, government policy, public administration, community management, education, family, and self-behavior are the context and factors that are important to the Perspectives and management of gambling in Thai society.

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Bowon Power: An Integrated of Community Development Mechanism in Nakhon Pathom Province

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Abstract— This research has the objective to study citizenship awareness in community development and urbanization of Nakhon Pathom province. Using the integrated research methodology, namely quantitative research The quantitative data were collected from 375 samples. The data were analyzed by using percentage, mean, standard deviation. And qualitative research 24 in-depth interviews with key informants/person and 12 specific group conversations/person, analyzing data in context and describing.

The research found that

The community development and urbanization of communities in Nakhon Pathom Province. From the study of the context of community development and urbanization of urban communities in the study area, it can be seen that the mechanism of urbanization is "Power Bowon" with "Community Funds" that are fundamental factors that drive communities to develop. Cooperation from civil society Having visionary leaders wants to see the development of the area in various dimensions. The reliance between community organizations and people, namely the state temple and the communities in which each side performs their duties appropriately. And co-ordinate working together which affects the quality of life of the people in the community who are the direct recipients of urban development Although some community development activities are not initiated by people in the community, but with various sectors being able to coordinate and collaborate And join together to drive development that will benefit the people in the community People are affected by the development activities.Therefore, creating a shared awareness as a force to drive community development activities into urbanization and is an expression of good citizenship by democracy.

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Index Terms—*Network Conscious, Good Citizenship, Buddhist Community*

I. INTRODUCTION

In globalization is an era of communication technology without borders. As a reason for the prosperity of modern technology, spread all over the world without borders, blocking in the relationship between the economy, politics and cultural exchange, social change, communication development, transportation, and information technology. Demonstrate the growth of economic, political, technological, and cultural relations linking individuals, communities, business entities, and government. This brings up a number of social problems that are threatening the country today, such as health and environmental issues, problems with lawlessness or rights violations, and social conflicts [1]. In particular, there are more and more people who practice the good immorality of religion in any field or any institution, as it always appears in the news on newspapers and other media. The source of the problem is the lack of good citizenship consciousness. Therefore, it is highly deserved to be extended and developed in terms of knowledge, skills, and attitudes to create a good relationship with the community and society. Learn and understand the culture, traditions, wisdom, laws, and the role of good citizenship. In addition, people have the right to freedom of expression in protection under the provisions of the Constitution of the Kingdom of Thailand, even though they are internationally accepted. In the rise of materialism and consumerism and began to adopt inappropriate foreign cultures, until making the culture of good values, which is a religious

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principle and uniqueness in Thai, including the way of life of Thai people, has changed as different people live, lack of generosity for each other. By considering only their own interests causing a lack of awareness of social responsibility. Nipawan [2] said that the development of the country continues to progress is need for intelligence and abilities of the people of the nation, especially children and youth who are the age of learning, creativity, and is a vital force in driving the direction of the country in a correct and appropriate way. As for the Great Decree Thitipasitikorn et al.[3] said that promoting morals and ethics for good citizenship Cannot lift the burden on an educational institution or school alone. The stakeholders should cooperate with the shin and earnestly. 1) Family institute Parents or guardians, which serves to instill moral and ethical transfer to family members as the first priority. 2) Elders and family members, children learn ethical attitudes from adults and imitation rather than hear the commands of adults directly. 3) Friends play an important role in shaping the moral and ethical values that children know and apply to the behavior of their friends. 4) Educational establishment or school environment arrangement, educational services, being a good example of a teacher, teaching, and organizing activities promoting morals and ethics, being a consultant like a good friend. 5) Monks are a moral leader in society. 6) The media is very important to guiding society, it can change attitude values as well as the behavior of the people in society, therefore, the cooperation promotes the development of youth to have a good consciousness. Therefore, requires cooperation in the form of "bowon" that is all sectors in society, including family institutions, educational institutions, religious institutions, community organizations together as a social network to develop human resources of the nation to realize the common sense of goodness.

In addition, in driving community development to become a strong city, it is essential that cooperation is participation from all sectors, especially people in the area. Creating good awareness of community development and building network participation for the development of good citizenship consciousness. Therefore, creating a fair balance in the interests of all sectors, that focus on the integration of the citizenship network and sustainable community, through holistic development to achieve a balance of development and capital utilization, including economic, social, cultural, and intellectual capital []. Including integrating the principles of Buddhism to be in line with the potential to strengthen the youth conscious network by using various activities in temples, schools, and communities as tools, inserting knowledge, skills, and attitudes that will enable the ability to be applied in daily life. As well as being able to transfer and expand knowledge on promoting physical and mental health, activities to promote good citizenship, adhere to the legal system and the judicial process. Also strengthened the attitude of solidarity, the principles of Buddhism is applied in order to raise awareness of citizenship in the community. The principles of Buddhism have been applied as a mechanism to drive consciousness generation [4]. All sectors are focus on and consciousness of cooperation in the form of a network to create a sense of citizenship that will affect the community development that is solid, stable, and sustainable together.

Therefore, this research is the study of good citizenship awareness in community development and Buddhist urbanization in Nakhon Pathom Province, through community participation which is the foundation of democratic citizenship, which will show the consciousness in driving community development from community capital like economic capital, social capital, cultural capital, and wisdom capital. Including the integration of religious principles that are consistent with the way of life of the people in the community. The fundamental and ethical context for the development of a good citizenship consciousness in community development, from participation in community development activities conducted by various sectors such as temples, schools, local government organizations, and communities. It is also a tool to interpolate knowledge, skills, attitudes that help to create awareness to be applied in daily life. As well as being able to pass on the knowledge of Buddhism as a mechanism for driving the awareness of good citizenship, which will affect the development of the community towards urbanization, that has peace, strong harmony, and sustainability.

II. RESEARCH OBJECTIVES

To study the process of raising awareness of good citizenship in community development and urbanization in Nakhon Pathom Province according to Buddhism principles and a study of citizenship awareness in community development and urbanization of communities in Nakhon Pathom Province.

III. LITERATURE REVIEW

The research team researches related documents and research to be a guideline for the study of citizenship consciousness in community and urban development.

A. The study of concepts about building good consciousness.

There have been scholars who have given the meaning of consciousness in a variety of 3 groups. 1) a group of psychoanalysts or behavioral scientists define consciousness, as consciousness is a matter of connected knowledge. Theoretically and the results are shown by external forces in accordance with the principle of reality. 2) Political economic theorists or Marxist, emphasizes the importance of class feelings, meaning consciousness refers to the mental state of consciousness knowing about ideas, feelings, and actions of their own, which are serving the interests of their own or other classes. 3) Sociologists havs defined consciousness as self-consciousness or someone else with you and social or group consciousness, social consciousness, or public consciousness, to realize and take into account the common or consider other participants. Prawet Wasi et al. [5] explained that the public consciousness for all or consciousness for the community (Non Governance Organizations- NGO) is a social tool. A focus on social contribution processes by non-profit organizations such as foundations and community clubs with the aim of 1) focus on group relationships, members must share ideologies and principles 2) a public mind, including goods public interest, public responsibility, and public accountability 3) social equity 4) social justice 5) social network 6) communication 7) vision 8) learning and 9) practice.

In the process of enhancing consciousness, there are many scholarly views on the process of raising awareness. Paiboon Wattanasiritham [7] has mentioned the process of creating a consciousness that the consciousness of people or the awareness

of the community, under the influence of many environmental factors classified into 3 types. 1) Consciousness arising from external factors, refers to the process of consciousness of one person that originates from the social environment starting from parents, relatives, teachers, media, mass people, people, as well as organizations, cultures, customs, traditions, beliefs, law, religion, etc. 2) Internal consciousness means contemplation of the individual in determining value and virtue decisions, which affect behavior and conduct, especially the mental practice in order to refine ourselves to be in that way. 3) The interaction between external and internal factors creates consciousness. It must not be hasty to conclude that either external or internal factors cause consciousness because all things are related to each other. (1) Consciousness coming from outside is a natural entry and most of them are unaware. And (2) consciousness coming from within deliberately selective, it means knowing yourself well. It is the consciousness that a person creates by himself.

B. The study of good citizenship in accordance with Buddhism

The duties of a good citizen according to Buddhism is the practice of being a good citizen according to the principles which consist of 1) ethics code refers to the principles of conduct that do not hurt others. The principle of behavior should behave in a peaceful society. 2) Moral principles refer to the principles of conduct that benefit others. Good principles are useful that society sees as virtue and beauty. And 3) Moral principles refer to the principles of conduct that do not hurt others. At the same time, it creates benefits for others as well by healing the body, verbal, and mind to be normal, not persecute others. In accordance with the Dharma Pitaka [8], giving the view of raising consciousness as a leader and being a giver, leadership comes when something is given to others, but when we receive it from others, we must follow, because of the idea of receiving a follower must keep watching. However, if we think that we have something good to give to him when we have it, we will immediately lead because the one who will receive it must watch and follow me, so we must raise the youth to be conscious, be the leader and giver Buddhism teaches to "look wide, think far, high desired". 1) The broad perspective is not just ourselves and our society, but see the whole world to be wise and see the relationship system of causes and factors in all things of nature that depend on each other, have compassion in life and perform various activities as words of the Buddha for the benefit of the people, to help and support the world to have a social consciousness and develop a wholesome and creative way. 2) Think far, aiming to reach the ultimate destination, living in the present, searching for wisdom, understanding the factors of the past, do not underestimate the prevention of deterioration. Create causes that lead to future prosperity on the basis of life that is in the present develops yourself to progress all the time to complete and flourish until Nirvana. And 3) desiring high, that is, pursuing dharma, worship dharma, desires to create goodness for life, society, nation to have peace and goodness.

C. Education of the concept of participation

Participation is a process or action that allows people to come together. Comment and planning of activities, setting the direction of self-change of the group, organization, or community,

as well as sharing responsibility, solve problems, and receive mutual benefits. It allows people to make decisions together to achieve the objectives of that activity, where participation of people is at the heart of development, both self-development, and local and social development. In accordance with Parichat Walaisathien [9], two characteristics of participation were summarized. 1) Participation in a development process that must be consistent with the way of life and culture of the community. 2) Local political participation by decentralizing the development power for people to participate in shaping their own future. As for Phra Maha Prakit Thitipasitikorn [10], it concluded that the participation process of the people covers how people or communities develop their own ability to manage and control the use of available resources or input factors in society [11]. From the beginning of the problem to the point, all steps of monitoring for the benefit of socio-economic livelihood as necessary as part of the community members. Also have the opportunity to plan, formulate management, and evaluate results, as well as make decisions in determining their own future and communities for better living [12]. Therefore, participatory development is a process that allows people to take part in the development work, take part in thinking, making decisions, and solving problems[13]. With an emphasis on the participation of the people in the use of creativity, knowledge, wisdom, and expertise of the community together with the use of appropriate technology, worthwhile, and to benefit the public community most appropriately[14][15].

Preliminary literature review, about building a good citizenship consciousness, which is the duty of everyone in Thai society to perform. This will help keep society at peace. All people lived together in peace, resulting in the nation's development and progress that must have two qualifications. 1) Basic qualifications are common qualities of being a good citizen, such as diligent, loyal, economic, responsible, rational, generous, compassionate, and seeing the importance of the common good. And 2) peculiarity is the specific quality that society requires individuals to perform, such as democratic citizenship[16], which aims to create awareness for participation or public consciousness to happen with the people because public consciousness is one of the virtues of good citizens. The value of consciousness is the spirit of a person, organization, or society. It is the power to drive development to create a society to be strong and reconciled, leading to the development of economy, society, culture, a strong foundation of social ethics. In the process of creating a good citizenship consciousness according to Buddhism, which is a self-consciousness to do anything for the sake of the public and creative thinking is charity. Focus on doing good deeds that benefit the public, creative thinking is good thinking, does not destroy people, society, culture, nation, and environment. Both actions and words come from good thoughts, the creation of the public mind in all sectors of society are very beneficial for the quality of life of the population because they can make members of society coexist, understandably, and happily do not hijack each other and have joint social responsibility. Therefore, the review of the literature is a study of the consciousness of citizenship in community development and urbanization of communities in Nakhon Pathom Province. Through the process of participation of people in 4 sides consist of 1) decision making 2) operational 3) receiving results 4) evaluation. Participation is characterized by a process by which individuals or groups of different faculties to assist and support in various matters or activities, from

participating in studies of various problems, planning, problem-solving, monitoring, and evaluation, the results will also be used together, etc. In addition, this participation process will serve as a tool for analyzing the causal factors for creating a shared consciousness in community development and urbanization of communities in Nakhon Pathom Province. And as a guideline for further study of the process of creating a consciousness to be good citizenship in community development and urbanization.

IV. CONCEPTUAL FRAMEWORK

Figure 1 shows the conceptual framework for the research
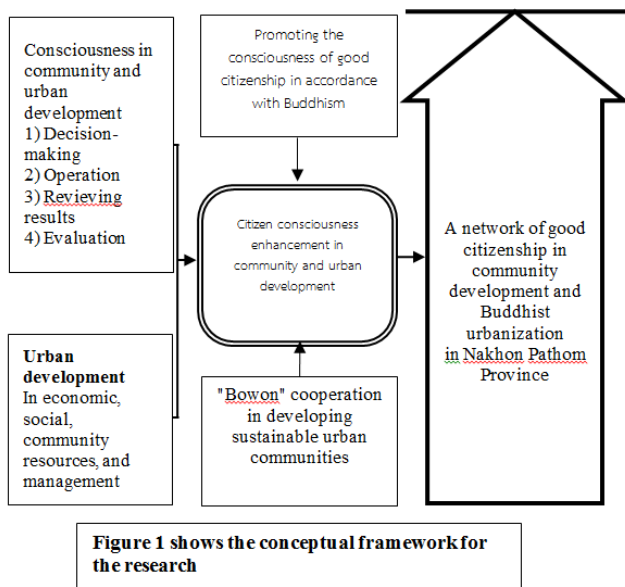
V. RESEARCH METHOD

Using mixed methodology research is quantitative research. The data was collected using questionnaires and qualitative research by engaging in community activities and observing the participation behavior of the people, the data was collected by in-depth interview and focus group meeting.

A. Research scope

1) Content scope, a study of citizenship consciousness in community development and urbanization of communities in Nakhon Pathom Province. The research team has studied the theoretical concepts of consciousness, concepts of building a good citizenship consciousness, and the concept of participation to study the awareness of citizenship in community development and urbanization of communities in Nakhon Pathom Province.

2) Area boundary, the research team determined the study area scope, which is (1) community in Rai Khing Municipality, Nakhon Pathom 2. Areas: Ban Rai Khing Community Village No. 1 and Rai Khing - Ban Rai Community Village No. 2, Rai Khing Subdistrict, Nakhon Pathom Province (2) Community in Bang Krathuek Municipality (Don Wai Floating Market Community) including Ban Khok Wai Community, Village No. 5 and Khlong

Wattana Community, Village No. 6, Bang Krathuek Sub-district, Nakhon Pathom Province.

3) Scopes of population, sample group, and important informants Population and sample in quantitative research, the research team determined the population used in this research was people living in Rai Khing municipality, Rai Khing community areas include Ban Rai Khing Community Village No. 1 and Rai Khing - Ban Rai Community Village No. 2, totaling 3,596 people. And people living in the municipality of Bang Krathuek (Don Wai Floating Market Community) includes Ban Khok Wai Village, Village No. 5 and Khlong Wattana Community, Village No. 6, totaling 2,303 people. So the total population is 5,899 people. The sample size was determined from the comparison of Taro Yamane ready-made table, at a 95 percent confidence level, the discrepancy of 0.5, 375 samples were obtained.

Key informant in qualitative research, the researchers assigned the key informant by in-depth Interview, to confirm the data and collect insights from the quantitative study results. Using a purposive sampling from community leaders, local leaders, monks, representatives of schools, government agency representatives, and representatives of the people in the study area, totaling 24 persons.

B. Quantitative data analysis and statistics used in data analysis

In quantitative data analysis, the research team has already collected data from questionnaires. Therefore, the data from the questionnaire was used to analyze the data by using the statistical software for social, data analysis, and statistics used. Descriptive statistic values consist of percentages (Percentage), mean, standard deviation (SD), inferential analysis, one-way analysis of variance or One Way ANOVA), T-test, F-test.

Qualitative data analysis section, the researchers analyzed and synthesized the data by using the content analysis method. The researchers recognized the key points of this research that is the information obtained from the collection is comprehensive for the purpose of research and able to answer research problems clearly, completely, and in line with the research concept. In which the research team has chosen the triangular technique that is theory triangulation, different from method triangulation and data sources triangulation. The research team has categorized and examined the data, operate systematically by categorizing information according to the specified content, after obtaining complete information.

C. Protection of the rights of informants

Protecting the right of ethical informants in research, the researcher has established the protection of the group of informants, by asking for cooperation in collecting information and interviewing, and the informant is happy to provide information. In which you have the right to respond to an interview or to decline, and during the interview, you can cancel or not answer any questions without limitation. All information obtained from you will be kept confidential and will present the research results as an overview. In the in-depth interview presentation, the investigator will not disclose the person's name, which will enter the information provider code, instead of identifying the person, and enter the code in the presentation of information, instead of specifying the name of the person, who informs the information such as interviewing like the important information provider No.1.

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VI. RESEARCH RESULTS

In the study of citizenship consciousness in community development and urbanization of communities in Nakhon Pathom Province, the research team has studied the theoretical concepts of consciousness, concepts of building a good citizenship consciousness, concepts of moral and ethical development, and the concept of participation, to study the consciousness of citizenship in community development and urbanization of communities in Nakhon Pathom Province. Creating a tool for the education of citizenship consciousness in community development and urbanization of communities in Nakhon Pathom Province, by using the concept of participation in decision making participation in action, receiving results, and the participatory evaluation, the data were collected by using questionnaires, from a sample of 375 samples. The analysis of general data on personal factors found that most of the respondents were female, which is more than male and alternative sex, accounted for 64.00 percent, while age will be in the range of 41-60 years for 49.00 percent. Most education levels have a bachelor's degree, accounting for 32.00 percent. The main occupation is trading and personal business accounted for 31.00% and had monthly income at 15,001-25,000 baht or 43.00 percent. As for the social factors of the sample, it was found that most of the respondents had a period of time to stay in the community 5-15 years for 49.00 percent, had roles as residents and members of the community group, accounted for 45.00%, and attended a community meeting or participated in 1-5 community development volunteer activities per year or 61.00%.

1. Citizenship consciousness in community development and urbanization of communities in Nakhon Pathom Province

Analysis results of information about the consciousness of citizenship in community development and urbanization of communities in Nakhon Pathom Province. Creating a tool for the education of citizenship consciousness in community development and urbanization of communities in Nakhon Pathom Province, by using the concept of participation in decision making participation in action, receiving results, and the participatory evaluation, the data were collected by using questionnaires. Results of analysis of citizenship consciousness data in community development and urbanization of community in Nakhon Pathom Province, show with mean and the standard deviation, both overall and in each aspect, can be summarized as in Table 1.

Table 1, shows the mean and standard deviation, the level of opinion on citizenship consciousness in community development and urbanization of the community in Nakhon Pathom Province with the participation of the people as a whole.

(N = 375)

Citizenship consciousness in community development and urbanization of communities in Nakhon Pathom Province by the participation of people	Comment level		
	$\overline{x}$	S.D.	Interpret results
1. Participation in decision-making	3.56	0.97	**high**

Citizenship consciousness in community development and urbanization of communities in Nakhon Pathom Province by the participation of people	Comment level		
	$\overline{x}$	S.D.	Interpret results
2. Participation in the operation	3.56	0.98	**high**
3. Participation in receiving results	3.58	1.00	**high**
4. Participation in evaluation	3.51	0.93	**high**
Total	**3.56**	**0.93**	**high**

From Table 1. It shows that the respondents had opinions about citizenship consciousness in community development and urbanization of communities in Nakhon-Pathom Province. By the participation of people Overall, there was a high level of consciousness with an average of 3.56. When considering each aspect, it was found that the side with the highest score mean was participation, receiving results with the mean of 3.58, followed by decision making and the participation of the operation had an average of 3.56. The side with the lowest mean. is the participatory evaluation had an average of 3.51. The above data shows the relationship between social factors and community to urban development, showing that most of the respondents, although not old people have lived in the community since as a population group that has come to live in the community for the last 15 years. They realize their participation in community development through their participation in community organizations and attending community meetings or participating in community development volunteer activities at a high level. The above information is consistent with interviewee 8 (5 Mar. 62) who gave information that although the community development activities in the past have not been initiated by the people in the community and their participation in the activities of the people is considered very rare in the past. But with the temple, which is a center of mind together with the administrative body, the municipality is the mainstay of the area development. Until I saw the results of a radical urban development people in the community, schools, authorities, or organizations all benefit from community development activities. Therefore, became involved in various activities such as today.

Analyzing the data of citizenship consciousness in community development and urbanization of communities in Nakhon-Pathom province. By the participation of people classified by side, the details are as follows.

1) Participation in decision-making. Overall, the public had a high level of consciousness with an average of 3.56. When considering each case, it was found that the item with the highest average score was that you were involved in providing various information in the community for use in decision-making, selecting activities or projects suitable for community development have an average of 3.68.

Followed by that he participated in discussions and considered various projects that may affect the development of the community. In line with interviewee number 8 (5 Mar. 62), who

gave information that providing opportunities for people to take part in initiating community development activities create a sense of ownership, activities collectively, take responsibility for public relations, inform the meeting news village community motivate create awareness to create solidarity in the community. Then various cooperation will follow in line with the 24 interviewees (1 Mar. 62), who said that the public hearing process is an important part of participation because of the development is in line with the needs of the community. The fact that people within the community are grouped into a community or a community organization to express the desired goals through the representative group leaders. The participation of the people is a concept that is rooted in the concept of democracy. In conducting any community development activity, people in the community are affected and stakeholders. Therefore, there should be an opportunity to express opinions together, which is the foundation of democratic citizenship consciousness.

2) Participation in implementation. Overall, the public had a high level of consciousness with an average of 3.56. When considering each item, it was found that the item with the highest average score was that you participated in the selection of representatives to be the committees of community development activities. 3.72 corresponds to interviewee number 13 (9 June 2019) who gave information that People in the community have selected representatives to participate such as a committee on community development activities It is considered as a good conscience of democratic citizenship. Development activities or projects taking place in the community It is an expression of the participation of people in the community and in line with the interviewee number 20 (27 February 2019), who said that the organization or agency in the area and people in the community had to participate in the operation of joint activities such as choosing a leader. A community or group leader can be an agent to suggest projects or activities be held in the community. There is a community development plan. There is a concrete promotion of activities according to the plan, reflecting the conscience in participating in the activities that people in the community and community organizations are driving together. With government agencies as mentors to provide support in various fields, such as supporting speakers to educate Recommended techniques, methods, etc.

3) In the field of participation. Receiving results overall, there was a high level of consciousness with an average of 3.58. When considering each of the findings, the one with the highest average score was that you saw that the participation of people in the community would lead to stable and sustainable community development. The average value is 3.72. such information corresponds to the interviewee number 14 (9 Jun 19) who gave information that the fact that Rai Khing temple is the center of faith and spirituality together with the government agency, namely the municipality is the mainstay of the development until they see the results of the urban development progressively people in the community, schools, organizations or organizations all benefit from community development activities. Therefore, became involved in various activities such as maybe in the present

because he saw that the participation of people in the community will lead to a stable and sustainable community development. The mind has volunteered to be a part of driving community development activities or public benefit activities organized by the temple or municipality and in line with the interviewee on 21 (16 Apr 2019) who said that the organization and the people in the community have been involved in receiving results from projects that have been promoted creating a career for people in the community well-being people in the community feel that they are part of the community. Activities or benefits that occur are all happening to the people and the community directly according to the needs of the people in the community leaders are contributors to driving appropriate development. People in the community make it a priority to contribute with their impact on the community.

4) Participatory evaluation. Overall, there was a high level of consciousness with an average of 3.51. When considering each case, it was found that the item with the highest average score was that you were aware acknowledge the results of activities or projects regarding community development, the average value was 3.55, consistent with the 8th interviewee (5 Mar 19) who gave information that although the project evaluation is a duty of the municipality but organizing monthly community meetings. This is an opportunity for the community to be informed of the community development results. Is promoting the community to be aware of acknowledged the results of various projects, the public participation in following the implementation of activities or projects about the urbanization of the community and together to sum up the results doing the community to analyze the results and then report. In order to fix or improve even better in the next activities or projects.

VII. KNOWLEDGE OF RESEARCH

A Study of citizenship consciousness in community development and urbanization of communities in Nakhon-Pathom Province. The researchers used the concept of participation in decision making, in action participation, receiving results, and the participatory evaluation educational tools. The results of the study showed the relationship between social factors and consciousness of good citizenship in the urbanization of community development, showing that people in the community, although not old people who have lived in the community since. It is a population group that has come to live in the community in the last 15 years, but from receiving benefits from community development activities raising awareness of participation being a member of an organized group in the community have a sense of citizenship in a democratic system by selecting representatives to attend community meetings with government agencies. The people in the community organizations or departments in the area directly or indirectly benefit from community development activities. Including good interaction in being with the local community thus making the conscience in community development become concrete because joint consciousness is a process for people to be involved in the implementation of development, joint thinking, decision making and solving their own problems. Sharing your creativity knowledge and expertise

together with appropriate speakers and support and monitor the performance of the organization and staff. In addition, receiving the result reflects the development effect. Through community leaders or corporate representatives who attended a community meeting held the public participation in the implementation of activities or projects about the urbanization of the community and together to sum up the results doing the community to analyze the results and then report. In order to modify or improve even further in the next event or project. It is a network in the community, making it convenient to thoroughly publicize information about activities in the community. Therefore, a concrete monitoring and evaluation process was established people in the community have been involved in providing information, analyze problems, propose problems, demand and select appropriate solutions to improve measures and government agencies. Play a role as a promoter supporting needs in activities such as budget support expresses coherence in society and for the process of receiving opinions from the public is an important part of participation. Because of the development is in line with the needs of the community. The fact that people within the community are grouped into a community or a community organization to express the desired goals through the representative group leaders. People in the community are affected and stakeholders. There was an opportunity to express opinions and suggest ideas together, find a common solution to drive community development activities, which is the foundation for creating good citizenship in a democracy.

From the results of the study of information in the research area on the context of community and urban development. Therefore, the research team summarizes the development model called "Palang Bowon" because it is a community-to-urban development mechanism of the Rai Khing township and is a model for expanding the development results to other areas, summarized as shown in Figure 1.

Chart showing "Palang Bowon" and urban development
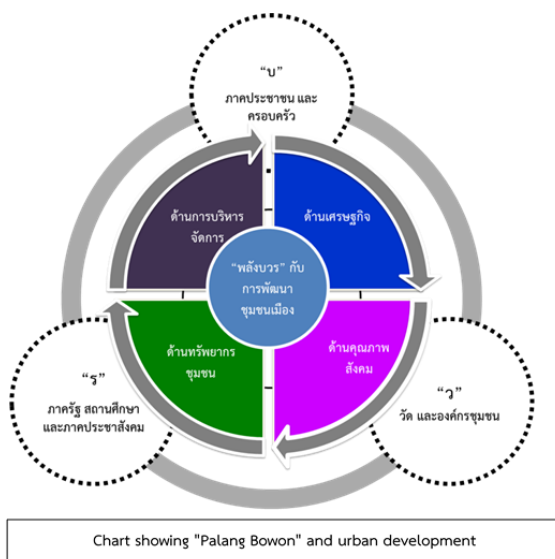
For the Bowon Power, it is a collaboration of social networks, a very important social organization and a pillar. That must be linked, sustained, supported, connected in a balanced manner as the adage known to be known and have heard each other that **"The temple is good, there is evidence because the house helps. The house will be beautiful because there is a measure of bending habits. The house and the temple take turns helping each other. If they conflict, they collapse in both ways"**. The main "Bowon" consists of "House, Temple (Government, State)" in all 3 sectors, thus being the pillar for community development that will bring about the stability of the nation. Even at present, Thailand joins the world with rapid change. In the digital age world, there are many crises, including economic crises, global warming, environmental problems. problem of inequality, problems of moral, ethical and social, these problems require cooperation. Every sector must strive to perform their duties fully and voluntarily and introduce the science of the king into practice with concrete sufficiency economy philosophy. So that communities and rural people Urban communities develop strong, stable, prosperous and sustainable.

From the study of the community development context and the urbanization of the urban area in the study area, the urbanization mechanism is "Palang Bowon" by using the potential that is "Community capital" is a fundamental factor that will drive the community to develop further is cooperation from civil society. The leaders with altruistic vision who want to see areas developed in various fields can cultivate faith and conscience in the community. Religious places are temples that have been the center of hearts since the past. The relationship of the people in the community with the temple that is both a source for selling educational opportunities, economic sources and mentally dependent. The consistency depends on the temple and the community. This can be observed from the annual gilding festival of Rai Khing temple, Tha Phood temple, Don Wai temple, where people in the community have a good conscience. There were many volunteers to assist in various departments, government sectors, including municipalities, educational institutions, various agencies, volunteering around to help provide services to visitors. It expresses a good conscience in being a part of the public activities

VIII. DISCUSSION OF RESULTS

The Study of citizenship consciousness in community development and urbanization of communities in Nakhon-Pathom province by the participation of people. Overall, there was a high level of consciousness with an average of 3.56. When considering each aspect, it was found that the side with the highest score mean was participation, affected had a mean of 3.58, which was at the high level. Take part in decision making and the participation in the operation had an average of 3.56 at a high level. The side with the least average In terms of participation in evaluation, the mean 3.51 was at a high level In accordance with Rathaphong Boonyanuwat [4] has studied "Participation in community development of the people of Dusit district, Bangkok". The research results showed that discussion issues. From overview and aspects participation in community development of the people of Dusit district Bangkok found that overall participation in community development of people in Dusit district, Bangkok Is moderate. When considering all four aspects of decision-making participation, operations participation, receiving benefits participation, monitoring and evaluation participation is moderate.

Because of most of the people are the only recipients of the information. Helpful information, including selection of community development activities or projects, information in the community to be reflected in decision-making on activities or projects in the community, as well as policy awareness and the implementation of the community committee budget plan. People are still not involved as much as they should and to play a role in community involvement in activities and projects is only occasionally possible [13]. With the role of community from time to time, it is not so much to follow up on the community committee's operations in accordance with plans and projects to solve problems and develop the community. Making the benefits that will be gained from activities or projects happening in the community to the people is at a moderate level only [16]. The other important issue, one of the factors that contributes to the participation of people in the development of their own community's due to occupational factors. People spend a lot of time in their careers, so they don't have as much time to get involved as they should to do. Many of them spend the rest of their career joining but others take the importance of activities and projects. In self-interest is a key issue in participation, which has been found that in the medium to high level.

IX. SUGGESTIONS

A. Policy Proposals

1) Creation of a good citizenship in community and urbanization development in Buddhism. This is to develop the potential of social capital. Thailand has an urgent need to pay attention and it should be a national agenda. That must drive the creation of a good citizenship consciousness in the democratic way as a strategic development to make the development of human capital a major cost for the further development of Thai society.

2) Conceptual framework design for human capital development that emphasizes the creation of a good citizenship in democracy, to meet the holistic national development strategy, to lead to preparation for human capital development and building community power with an emphasis on personal skills participation in the community and awareness of social responsibility.

B. Practical recommendations

1) There should be a source of knowledge and information that will be more useful to community development activities than they are. The source of such knowledge has no time limit, you can view it at any time such as there is a reading place for the village to be a source of meeting and discussion Including various online media.

2) There should encourage people of all ages take part in expressing opinions on decisions on community development activities or joint community development plans, to express problems and opinions freely such as having a comment box and bring various suggestions. That have been shown in the community meeting to jointly acknowledge, listen and make decisions.

C. Suggestions for the next research

1) Good citizenship consciousness network should be promoted in community development and Buddhist urbanization in all regions of Thailand, to compare and study the democratization process of each area.

2) There should be a study of the model of networks of good citizenship in community development and urbanization on multicultural communities, to be a model for building good citizenship according to democracy and is a model of peace consciousness to live together in society.

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An Essay on The Debate About Who Should Rule.

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Abstract—This article on the debate about who should rule? It discusses the diverse answers of influential political philosophers and political scientists. The study found that Plato argues that philosopher king should be the ruler. In contrast, people cannot take part in the Government. Rousseau supports the rule by the people who must be able to legislate.

Furthermore, try to enforce it on yourself before leading to a majority vote. Aristotle believed that no one or any other group was a ruler but ruling it for the public good. While Mill believed that the representative system could create great happiness for the people, and it can be recalled. Finally, Sylvan argues that there was no need for a ruler. Because rulers bring war and exploitation, people can rely on themselves without their ruler to aim for utopia or an ideal society that should be inhabited. As a result, the representative system of the authors' view is the most appropriate form today. Because when a ruler is a tyrant, we can always recall power and choose a new ruler and create great happiness for people as well as possible.

Key words—*ruler, Government, representative, political philosophy*.

I. INTRODUCTION

A debatable about who should rule? It has been a great question in political philosophers from ancient Greece to the present. Nowadays, the rule's mainstream is often related to the liberal democratic ideology under a representative system.However, the idea was challenged by conservative ideologies. In particular, the phenomenon of right-wing leadership in the United States or the emergence of anarchist groups rejects states and rulers.

For this reason, the authorsare interested in studying and comparing the ideas of influential political philosophers and political scientistson the debate.For readers to know the answers about the various good rulers. Moreover, what criteria must be used for consideration?Within this article, the authors will lead the reader to the sage's answer to the above question: Who should be a ruler? Starting with Plato, Rousseau, Aristotle, Mill, and Sylvan, each with a view to who should be. What kind of ruler are they similar toor different? Readers will find the answer in this article.

II. PLATO'S ANSWER WAS, "RULING SHOULD COME FROM THE SELECTION. NOT ANYONE"

In response to this first reply, the authors take the great philosopher who softened ancient political studies and influenced modern city study. The readers, especially the classical political philosophy, might have guessed that the authors were referring to the wise man, Plato, who wrote *The Republic*, who attempted to explain ancient times political politics through "Dialogue."Behind this book is essential to modern political education and political science in *Crito*.Conversations within these two works, there are two characters: Plato himself. Moreover, his teacher is Socrates. As mentioned, these books are essential for the study of politics, political science. Those who are interested in this field need to read through to learn an example of questioning.

Moreover, raven tries to answer questions in political philosophy,Especially issues of who

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should be the ruler? Within the content of this Plato work, the authors were aware of Plato's attitude towards (ancient) democratic Government. Plato strongly opposed the idea. Because ancient democracy is a direct form of Government to understand ancient democracy and understand Plato, the authors want to explain the form of democracy in the city-state of Athens.

The city-state of Athens is one of the Greek city-states. In the history of world politics, Athens used democracy as the first in the world. Athens is a small state with an area of approximately 2,500 square kilometers. Moreover, approximately 60,000 citizens (Athenian citizens do not include children, women, slaves, and aliens) [1, p. 55]. When compared to the present, the city-state of Athens is similar in size to Thailand's municipality. However, given Athens' size and space, direct democracy was possible. In other words, Athens direct democracy was all citizens of Athens's city-state participate in Government, particularly the right to attend public councils to decide on public matters, which does not have a representative system like today.

Nevertheless, this does not mean that all citizens attend the meeting. The Athenian system was how all citizens were rotated to serve in people's councils under a 'Draw lots' system. Anyone caught doing it. In Plato's work, it is said that at one point in the life of all citizens of Athens, there was at least one active duty. At this point, the authors see the drawing system as the most equal. Since everyone will never know if they will be caught in the act or not, everyone has equal citizenship, regardless of their qualifications such as economic status, occupation, and education, excluding sex, age, slavery, and foreigners. Athens citizenship is limited to male citizens aged oneand over and must have an Athenian father [2, pp. 14-16] .It shows that Athenian democracy is a regime in which citizens directly participate in the majority of unqualified and qualified citizens. It was at this point that Plato came out to attack Athenian rule, not appropriate.

Plato has raised an exciting question about the ruler. Each human being is born with different aptitudes according to each individual'ssuitability,

i.e., some people are skilled in engineering. In contrast, engineers cannot qualify for medical treatment. On the other hand, doctors were unable to build houses as engineering. From the above explanation, the authors found that Plato tried to propose logic so that everyone is born without equality. Everyone is born different, which is defined by a different nature here. Plato includes "Leadership or Ruler." Plato suggested that the ruler must have specific skills, unlike the average person or not someone like the Athenian regime . Plato's ideal ruler must be a natural guardian, have knowledge and skills, and receive good ruler training. Plato addressed the issue through his character Socrates in a metaphor dialogue Plato calls "Ship of State Analogy."

Ship of State described Plato's metaphor through seafaring and leading the state forward in a desirable direction. In which to lead the ship in the desired direction or reach that destination. Plato suggests it requires a captain with knowledge, navigation skills, wind direction, a view of the crew's stars, and rule. To bring the boat to the destination, and the captain must not be a crew or a slave. According to this logic, the state's rulers must know when considered the regime. And skills in the science of Government, not anyone. Plato used the metaphor of the ship of state to explain why philosophers should be king. Though he does not seek power, the navigator is the only one who can steer a proper course-much as the philosopher is the only one with the knowledge to rule justly [3, p. 38].

In other words, the ruler should be trained and be the right people. Through the educational screening system, Plato used the educational system as a tool for screening people. To classify people, Plato suggests that all children born at the age of 5be brought together and separated from the family. All children will be educated equally. At a particular time, they were put to the test.Such as a child old enough to take that first exam, anyone who fails the exam will be split into "The general public" to work in general, such as carpentry, merchants according to their expertise . Those who pass the exam will receive a higher level of education. Likewise, after a while, there

will be a test. If anyone fails to pass this second test, they will be separated from the guardian to serve state security. He also served as a civil servant in various fields, while the rest had to be educated until the age of 50, so it was appropriate to be a ruler. Here, Plato uses the term "Philosopher King"[4, pp. 129-132, 5, pp. 67-68].

From Plato's proposal, the authors found that he had an attitude about the rule that should be the skill. This is no different from being a doctor or a ship captain who must be trained with appropriate skills. In this sense, Plato sees people as rulers as undesirable. Because they had not been trained very well, the people lacked the skills of governing Plato thinks that if people make public decisions on their inefficiency, they will have enormous consequences for the country. At this point, the authors viewed Plato as trying to propose the idea of natural dictatorship. With good people who know about drum distillation, Not anyone.In the sense of Plato, the authors viewed it as not a present-day dictator. Instead, it is a dictator who has undergone building a leader with advanced governing skills.

Moreover, these people will have to give up their possessions. They do not have a wife and children because they might induce the philosopher king to act corruptly. However, the authors think that Plato's concept is challenging to put into practice. Because Plato's qualifying rulers had to dwell on books for more than 50years, they cannot have private property and family [5, p. 69].Anyone or any organization can condone the philosopher king because Plato gave the philosopher king the most innocent. Alternatively, when the philosopher king's actions violated a minority of the kingdom. Will those minorities be protected?

III. JEAN JACQUES ROUSSEAU'S ANSWER WAS, "PEOPLE ARE THE BEST RULERS."

When we consider Plato's answer above, readers will find that Plato does not care about it and does not believe that people can become rulers. Plato's extremity led to the political-philosophical argument that "People are the best rulers."In political philosophy, many thinkers have suggested, especially Jean Jacques Rousseau. He proposed the opposite idea of Plato: insisting that people should be the ruler as possible.Rousseau offers this answer within his masterpiece, "The Social contract," where he explains that states were formed by accident and states were born to be bad states. Because a state in this sense only has a handful of beneficiaries.

Nevertheless, most people lose their benefit besides being oppressed when this human relations model arises from this coincidence causing human freedom and equality to be lost . From the original man in the community contract theory, that man has freedom in its natural state, are equal under bondage humans lose their freedom after the transfer of power to the rulers so that they come to protect the safety of life and property.[6, p. 181]

Rousseau suggested that the state emerged from the bad. However, it can be justified by reformatting power relations between people. The implication is that the political solution is to give all people the action to abolish the state that it once had. Because he views the state as a bad thing, Once canceled, everyone will come and make a new community contract. Because he sees that a good state must be a state in which people have freedom and equality.He proposes to create a model of Government where humans coexist. Able to protect and protect members and his property under typical power and ties.However, he also argued that a righteous form of Government with freedom and equality was the renewal of the community contract like the state form agreement, which he believes is the legitimated form of Government [5, p. 80].

Rousseau's good regime suggested that all citizens could propose laws on their own. It reflects that everyone has equal rights and freedoms because everyone can legislate on their own. Then apply the law that you created and apply it to yourself, as if everyone had freedom in the case of the majority vote on proposed legislation that we have not been received from the majority. Our proposed law has fallen. Even if we assume that the laws that we offer are suitable for everyone or the state, it was not. Because it is

only suitable for the proponents .However, Rousseau explains that although the majority does not approve of the laws proposed by the public. However, while voting, we have no idea what the outcome will be. [4, pp. 140-142]

The authors believe that Rousseau tried to argue that the parent is the best protection. Under the reason that If we want a form of Government that rightfully is freedom. Moreover, equality: We must make the people their ruler because the legislation itself is a tool to guarantee people's freedom and peace. He proposed that people have the power to legislate. Moreover, the Government or the executive is just the person who adopted the public resolution, or the Government is merely obeying the orders of the people contrast to Plato, the ruler must be the right person with skills through practice making people unable to be a ruler.However, the ideas of Rousseau, if adopted, may present a problem. Due to a large number of people, it is not easy to hold meetings simultaneously.However, Rousseau's qualities have resulted in our righteousness values that the people must agree upon. And Rousseau's influence on the French Revolution of 1789.

IV. ARISTOTLE'S ANSWER WAS: "ANYONE CAN BE A RULER, BUT PLEASE DO IT FOR THE PUBLIC."

In this third answer, the authors will lead the reader to find the answer that "Anyone can be a ruler. However, let us do it for the public good." That is regardless of the regime. Just ask to rule for the benefit of the public or for the people who proposed this answer was Aristotle. He was a student of Plato. Who believes in being a philosopher king, Aristotle presented ruler issues through his famous book important to studying politics and political science, *"Politics"* in volume III.He began to explain within the book by classifying the pure form of the state's political community. Under the tripartite classification, Aristotle began by explaining that his criteria could be divided into two criteria: [7, pp. 1183-1185]

The first criterion is that the number of people using political power that Aristotle is seen as holding power is different. Moreover, it can be classified into sub-groups that can be divided into three groups: The One (Rule by a Single Person) or dominion of a single person.The Few (Rule by a select Few) or dominion is in the group, and the many (rule by the many), or the dominion at the mass [7, p. 1185]. From Aristotle's point of view, whether it is a form of Government can only be classified into three summary formats. However, the classification of power is not enough as good or bad because this criterion only describes the form of the regime. So, he proposed the second criterion to bridge good and bad gaps.

The last criterion is the enumeration of the parenting model in conjunction with the first criterion, under the goal of exercising power to govern. That is, when the ruler, whether one person, a group of people, or the public, has power in that hand. May use such power for personal gain or the public interest, and when any form of governing uses power for personal or group, Aristotle called the regime "bad" forms part of the governing authority for the common good or the public interest. Aristotle called it a "good" round. When both criteria are taken into account and combined, there are three traditional forms of Government: power on one person, power on a group of people. Moreover, power is at the public. When considering the goals of exercising power into consideration[3, p. 43].

First, *the one* is a form of governing body in which only one person dominates. If power is used for the common good, it is called *monarchy*.This kind of exercise of power is often found in countries with a monarchy or absolute monarchy. Where power is centralized in one person and is used primarily for the majority of people. However, when one person's power is used to benefit himself or for that group, Aristotle is called *tyranny*. Second, *the few* is a form of Government by a small number. If the power used for public interest or benefit of the public, Aristotle called *aristocracy*, but if a group of people forms a governing authority to benefit a person or group of dissenters, Aristotle called *oligarchy*. Third, *the many* is a form of Government or majority. If the mass uses power for the public good or the benefit of the public,

Aristotle is called *Polity*. Nevertheless, if the mass form of Government uses power for themselves, Aristotle calls it *democracy*.

The authors found that Aristotle divided form of government targets and power; if the power to the public's interest, it is a good regime. Furthermore, if the Government used for personal or group, it will be a bad rule. We will see what Aristotle proposed that. He does not care what power is in the hands of anyone or any group of people. Instead, he points to the use of power, whether it was for the public or the self.

Nevertheless, in the case of the public's power, how do we know if power is used for good or bad since most people's needs are also in the public's interests?On this point, Aristotle explains that the majority of the public governing for the public means that the use of Government for the common benefit of the advancement of the state. It is not an exercise of power for the public's needs, but the state retreats i.e., suppose the mass has the power to legislate on taxation and see that tax collection is the burden of the majority of the state's citizens. Therefore, the public has enacted laws so that people do not pay taxes, etc.These actions Aristotle regarded as made for the benefit of their people, ignoring the public interest. As a result, the state may step into the state fall, because of the operations of the state-required tax money from the public. Moreover, if the state has no tax from the people.The state cannot function in various affairs, so he sees power in that direction as *bad* and called *democracy*.

On the other hand, if the mass uses their power for the common good, which is different from the self-interest of the crowd i.e., if a state reduced some taxes to create more intra-state investments, incentivize merchants to increase their trading capabilities or with reasons for the state's progress.Using this power of governance by the mass, Aristotle called *Polity* or a governing form. The goals of using power to benefit the public as a form of rule by the public good.He uses this term because it is difficult to define the public's particular virtues under any name. Therefore, he uses the term above substitute for the form of Government in which the power in the public's hands and the public is right and moral for the public good[7, p. 1185].

From Aristotle's proposal, the authors found that he disagreed with his teacher on several issues. However, Aristotle and Plato agree that democracy is a form of mass government done in their interests but not for the public good.That model is ancient democracy, as the authors explain in Plato's answer because Plato believed that good rulers trained to practice their governing skills.Rousseau said that all people should be rulers, which is consistent with Aristotle only in mass government. Nevertheless, Aristotle believed that a ruler could have as many people as. Nevertheless,they must use their power for the public good, Especially the polity model.

V. JOHN STUART MILL'S ANSWER WAS, "THE PEOPLE'S REPRESENTATIVE IS THE BEST RULER. "

Nowadays, we are familiar with the representation system. This system is a form of Government in which people can participate in presenting their representatives to legislate. Moreover, bring those laws into force.The form of Government is a Representative Democracy thinker for many forms of the democratic government model. One of them is John Stuart Mill. Mill's idea based on what concept? Which he based on from the Utilitarianism school .The core is about happiness or pleasure. It is this core that Mill sees as a good thing that does not depend on anything else. All human actions go on for happiness and avoid suffering, which led to the utility thinkers' fundamental beliefs adopted as a fundamental principle of society. It indicates that a good society is a society that adheres to the fundamental principles that Mill offers, *Greatest Happiness for the Greatest Numbers*[8, p. 57]. He argues that acceptance of utility is the foundation of happiness, which is the foundation of morality, that right action is the act that can bring about happiness. The wrong action is the act that has the opposite effect of happiness. Happiness without suffering, pain. It is a state of liberation from suffering that is the only desirable destination. Furthermore, there must be a way to be free from suffering. [4, pp. 154-155]

For Mill, the *representative system* is the only means by which democracy can survive in the modern world [5, p. 94]. Mill argues that advocating for surrogate Government is that public Government is practically impossible in large states. Therefore, need to have a representative government Mill sees surrogate Government as the best Government. As self-government is often problematic, other forms of Government are more appropriate for them. A representative will enable people to progress to the next stage of society.Mill believes in rule by specialists, but the supremacy comes from the people to take charge of the Government. If it cannot control, it may be a tyranny as well as an absolute monarchy.Besides, Mill suggests that councils are the body of thought, a fine example of intelligence at all levels. All of which have the right to participate in public affairs, whose mission is to express the people's needs and demands and discuss the opinions of the people.Mill believes in a balance of power between the Government and the people's representatives because if the people's representative organization has too much power, it will hinder the Government's work.Simultaneously, When the people's representative organization is too weak, they cannot control the Government. The organization it represents lacks the psychological qualities necessary to operate the evil vested interests.The strategy that brings people with knowledge and expertise to work is to build a bureaucracy. However, the bureaucracy often deteriorates to become a permanent job detracting fromthe trained government officials' individuality.

In voting, Mill argues that the simple majority will be dangerous and lead to evil regimes. He offers to educated or professional people. Alternatively, other classes can vote for more than one time. This proposal shows that Mill fears boundless democracy. He believes in the representative organization that consists of two main classes in society: the working class.

Furthermore, the elite was equally balanced. To hope that representatives of each class vote in line with their interests [9, pp. 216-219]. Thus,

participation in politics and governance is a good and desirable thing. It can bring happiness and move towards the goals of everyone. Because Mill sees that the model of Government in which people participate will improve their lives and make them move towards their goals of life and still be able to meet the needs of the people as possible.People can negotiate benefits with representatives, while other governments are brutal.A Representative system can create happiness for people because people can self-protecting. Mill emphasizes that people must be involved in Government because it is the only way to bring the greatest happiness to the greatest number. [4, p. 156]

As mentioned above, the authors found that Mill proposed a compromise between Plato and Rousseau's radical idea: the people who believe in people and those who believe in them. Mill stressed that people should participate in Government at the representative selection level because people can choose what they want and bring happiness.Also, if the rulers who represent the people ignore or do not meet the people's needs, they can choose a new representative who is ready to meet the people's needs.

VI. RICHARD SYLVAN'S ANSWER WAS, "THERE IS NO NEED FOR A RULER; PEOPLE CAN TAKE THEMSELVES.

In this last answer, the authors propose an idea that dismantles the mainstream answer - the anarchist ideology, particularly Richard Sylvan. He explains that the academic circle of political philosophers agree that anarchism is a thought that requires the abolition of all states. Besides, anarchists are considered idealists.Anarchism is an ideology that arises for the resistance of modern states.Even more, than this idea appeared in previous philosophies. (Stoicism and Taoism) Furthermore, it appears in writings of the late 18th century, especially the French Revolution.

Initially, the term "Anarchist" condemns those who reject the law and those who crave chaos. It was used again during the British civil war and the French revolution. Most political parties criticize the left in the political-ideological spectrum.It was

then officially used in the works of Pierre-Joseph Proudhon on *What is Property?* (1840). He said he was an anarchist because he believed in a political organization based on authority. It should be replaced by a social and economic organization following non-compulsory and voluntary agreements. Then this ideology spread wildly, especially during the 1960 s[10, p. 257]. Philosophically, anarchism is either a theory, a principle, or a practice. The dictionary means There are three essential structures in politics: authority, coercion, and the general use of both.

The principle of opposition to all states' existence is not a matter of meaning; the authors explain that it is critical to the prevailing state system's nature. It is not easy to choose anarchy; for example, when the traffic police stopped working, traffic continued as before, presumably an interlude to the surrounding power structures. The end of Marxist was a highly productive authoritarian dictator. This hypothesis simulates the error that anarchism is far from political practice in modern, complex states.The issue of state monopoly is brutal coercion of power, so anarchy is used to solve such problems to end institutions and create new ones [10, p. 260].Besides, the English language with the word "Anarchy" focuses on the damaging, mescaline, disorderly, disobediently of leaders who have been influenced by the Greek era.Therefore, the first meaning contradicts the present meaning. Anarchy gives absolute freedom to the individual, But the vital question is, if there were no heads of Government, leaders, and central, what would be the political structure?

Anarchists propose that response is not necessary for a mathematical structure but included in the definition of anarchic modern goals, i.e., an organization can accept an organization without coercion of power. Moreover,it must be voluntary and cooperative. Anarchists have many theories in which anarchy is merely a structural theory that highlights the rejection of authority, consistent with the principle of denial of power and the state's intimidation.Simultaneously, trying to limit anarchism to specific forms, blocking the state's

mandate to lead to independence is generally performed, first, with society's good, which must be ethical. Second, it caused self-government to lead to anarchy. However, these proposals have been contested with differences, intimidation, and instrumental coercion. These are generally recognized as ethical undesirable. The core of anarchism is *anti-statism*, *anti-clericalism*, *utopianism*, and *free trade*.

The debate against that state anarchists criticizes the state as a tool and a privileged means to create wealth for elites linked to political and social power, and that society cannot match with the state.However, the state was replaced or even dissolved. A state that is undesirable and does not take seriously the bad. In particular, the state is still a cause of war, excessive support for the military budget, overproduction, and production of weapons for export, especially nuclear weapons, and without a state, would not be a nuclear war that would damage the world [10, p. 266].

The authors see anarchism as a critical tool, as the concept of the building. The anarchists question the theory of the birth of the mainstream state influenced by the community contract theory because the state is not born in the natural state or the covenant path and agrees with the liberals that the state has to have the least power and function of the stable and only take care of some organization.This argument found that the patriarchal state oppressed many people with unjust political activities, and anarchy was also against the idea of divinity, and the argument against god led to the core of anarchism against the church. Although political scientists view these paths as absurd, they discussed replacing state operations and functions outside of the mainstream political science conference through preparation and options to establish in the territory designated by the state.Nozick's *Anarchy, State, and Utopia*, whose replacement was successful, created a utopian to face the state. Other main routes lead to confrontation, and revolutionary paths route through direct action to state activities and practices [11]. The use of movement and technical anarchism in political action, such as

environmental and peace movements, is the underlying anarchist ideology in society, and they hope for the people's popularity in anarchy to achieve great goals in the future.

In the 19th century, Robert Owen's work in England and Charles Fourier, Henri Saint-Simon, and Étienne Cabet in France, known as utopian socialists, created a better future establishment of a small experimental community. On the other hand, Karl Marx and Friedrich Engels, and others argue that such an approach does not solve industrial society's problems and that the "Utopian" symbol has an unrealistic and innocent meaning.Later, both dissident theorists and advocates of utopianism debated the desire to describe society as a means of significant social change. Christian religious thinkers were deeply divided with utopianism. Is seeing a better life on earth unorthodox or normal to Christian thinking? Since the fall of communism in Eastern Europe and the former Soviet Union. Many theorists have argued that utopianism is over and is still being intentionally written and formed by communities hoping that better life is possible[12].

Finally, when heading towards utopia, rulers are no longer needed because anarchists believe that humanity is useful from birth or that humanity is born with good. Humans have the potential to create good social interactions with one another and cooperate. Reconciliation is a process that occurs naturally in human society. Moreover, it is the order of nature that tends to cooperate and depend on harmony, aiming for everyone to survive simultaneously. If anyone is not ready, they will make it available for the less fortunate to survive together. Unlike competitive liberals, they ignore the people behind them. Tyrant rulers not doing it for the public good must be removed. Hence the belief that the assassination of a leader is righteous and just in itself. Failure to do so for the public or the public is to exploit and oppress, whether by the rulers themselves or by politicians, businesspeople, and bureaucrats against the proletariat. Anarchists see the daily violence of society as a mirror of the truth from the creators of violence.Therefore, terrorism in an anarchist perspective is *Revolutionary justice* under the eyeball-to-eyeball concept and can also reduce a ruler's moral or the ruling class. To make the ruling class lose power, privilege, and show weakness in the rulers' defenselessness. It can also elevate the political bureaucracy and motivate the public to move on to the revolutionary path to create a genuinely utopian society.

CONCLUSION

The authors offer various answers from political scientists to answer the question: "Who should rule?". To seek out a wide variety of answers and to be able to consider and use them in different contexts or situations. In my opinion, that every answer is essential to current and future forms of governance. That is to say, the ideas of everyone referred to build quality in the field of political education and political science, including their implementation or application to suit each social context. Plato's concept was adopted in many city-states during ancient Greece. While not all of them can be used, all children's involvement with multiple studies and tests is done. They are found in various city-states, especially Sparta. However, the ban on property and family possession is far from feasible because no one would be willing to study until the age of 50 but nothing of his own. While Rousseau's proposal was idealistic because in the real world, each country's population is millions of people, and not everyone can legislate themselves. However, Rousseau emphasized that the proposal reflected the freedom and equality of all citizens. Even if it applies to others, the majority of votes must be approved. Nevertheless, this Rousseau concept has produced some exciting results; the French Revolution events in 1789 that appear more than Rousseau's idea is one of the revolutionary scrolls.

Also, Aristotle's proposal combines all forms of Government and can describe a separate condensed form of Government based on the number of people exercising power and the exercise of power. He supports the Polity that the authors see as the dominant majority of the middle class. In other words, when the middle class has political power, of course, policy issuance offers the needs of the middle class, but if we look at it,

we will find that the policies that offer the middle class are not extreme. However, these three answers were disputed by Mill. He argues that only the people's chosen rulers can bring happiness to the largest number of people according to the concept of happiness because other forms of governing are not as useful as agents. However, the authors take the work of Sylvan and other anarchists to explain a different answer: There is no need for a ruler, people can take themselves. Because anarchists see that human beings are born with virtue, the state creates inequality, exploits humankind, and causes war.

Finally, the authors believe that the concept of social contract and happiness under Mill's representative system is most desirable for parents today because they can change their parents at any time or according to the general will agenda. Furthermore, able to combine ideologies, not necessarily liberal democracy. In modern times, a representative system can be a mixed constitution that incorporates other forms to adapt to various political and social contexts, such as a social-democratic regime. Although the representative system cannot guarantee the rulers' outcome in the public interest, the authors think it is the only system capable of recalling sovereignty to the people. To select a new ruler, ready to create happiness for the largest number of people.

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Empowering Volunteer Spirit through The King's Philosophy to Solve Problems in Community: A Case Study of Volunteer Spirit Group in Phutthamonthon, Nakhonchaisri, and Sam Phran District Nakhon Pathom[*] Province.

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Abstract—This research article aims to study, analyze, and develop community capacity to empower communities and prevent social problems in Nakhonpathom province. This work is qualitative research and uses documentary research to create training prototypes and focus groups among sample groups or key informants. This is a group of volunteers' spirits, Phutthamonthon, NakhonchaisriSamphran district totaling 34 people to be aware of the community's problems.

The study results showed that the training model obtained from the document's synthesis and processing consisted of the volunteer concept, The King's philosophy, the concept of community empowerment. After that, the focus groups found that the volunteer spirit group in the Phutthamonthon district voted that the garbage problem was the biggest, consistent with the volunteer spirit in Samphran district. Both groups propose a waste separation campaign, support equipment from government agencies, educators. In contrast, the Nakhonchaisri district volunteer spirit group resolved that the problem of invasion of the Tha-chin river was the most important. Moreover, proposed state legislation to create a group to negotiate seriously with the government and put pressure on those who transgress the river, including the media as a tool of pressure. Finally, by training the model with a volunteer group, they will understand the problems in their communities and formulate groups to solve problems in the community through volunteer activities.

Key Words - *Empowering, Volunteers Spirit, The King's Philosophy, Community Potential*

I. INTRODUCTION

Under the present Thai society context, it focuses on material prosperity according to capitalism, economic growth, and technological advancement. This causes Thai society to become highly competitive, leading to social inequality and social problems. Under such circumstances, it dramatically affects Thai people's way of life, such as having material values and pursuing personal interests more than the public. Doing for the public, which is a gap that causes many social problems such as drug addiction, community non-waste separation problem, river intrusion problem [1]

The public sector under the volunteerspirit group*(Klumčhit'āsā)* in Nakhon Pathom Province has begun to play a more significant role in organizing social activities.In particular, the volunteer spirit group in Phutthamonthon District has about 2,500 members, the Nakhon Chai Si district volunteer spirit group has approximately 2,000 members, and the Sam Phran district volunteer spirit group has approximately 1,800 members.It is an essential group of people who

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can add skills to organize activities to empower the community and the community's problems.The researchers are interested in studying to empower the community by building community empowerment tools by creating a volunteer model to develop community potential through volunteer networks in the area. The researchers will apply the concept of community empowerment and volunteerism to strengthen co-operation with the community through the King's philosophy of understanding, connecting, and developing in line with the government policy and the 20-year national strategy in the fourth issue on security. Section 4.2 emphasizes the application of The King's philosophy. Along with the introduction of Dhamma for unity, which means unity, unity, satisfaction with one another. To develop community co-operation to strengthen the community to have co-operation to prevent such problems sustainably. This will benefit the most people in Nakhon Pathom and can use this format to be disseminated for development and application in other areas.

II. OBJECTIVE

Analyze, and develop community capacity to empower communities and prevent social problems in Nakhonpathom province.

III. METHODS

This study is qualitative research, finding data from documentary research, and collecting data through a focus group. Key informants from using purposive sampling to depth information. The researchers have identified the people involved in the volunteer spirit activities and conduct them regularly. The volunteer spirit groups are included in each district as follows: volunteer spirit, Phutthamonthon District 15 people, Nakhon Chai Si District 10 people, Sam Phran District 9 people, total of 34 people.

IV. CONCEPTS FOR TRAINING VOLUNTEER SPIRIT GROUPS.

*Community empowerment.*Many scholars have focused on "Community empowerment," such as the work of Paulo Freire[2] describes community empowerment as the process by which people in the community or villagers are involved. (Which is held in a state of silence and despair) gathered through dialogue and praxis to form a "consciousness."Formed the foundation of change for the release of bondage to meaningful and well-being. Better than before. WhileSaul D. Alinsky[3]viewed that the process by which the have-nots realized mutual benefits resulted in the exchange of knowledge through the establishment of the positive power of empowerment. Movements and changes aimed at restoring the dignity and dignity of humanity, justice, and resource distribution.In addition, Glenn Laverack [4, p. 20]mentions the rendering of community energy as a process by which communities create something of value and character that gives them the power to shape their destiny and give them the power to shape their lives. It has a precise aim to change society and politics by driving changes in public policy, making decisions of the state, and distributing resources. On the other hand,Jim Ife [5, pp. 67-68]sees it as a process of the disadvantaged to challenge or change the central discourse to lead the struggle for liberation, growth, and freedom from disadvantaged experiences. This concept is not a form of "Power-over," but rather a concept of "Power to" and "Power-with."[6]

*Tools for community empowerment.*The idea that the community's power from these scholars on the above, the investigators have chosen to bring the tool to empower communities of Paulo Freire used as his study of the oppressed and to establish the power of the people. Oppressed, which in the present context is the countryside itself. Freire explains that the problem of suppression comes from a silent culture and bank education. It creates a state of helplessness of the

oppressed arising from the condition of humiliation and dehumanization. With oppressors taking away the poor's humanity, these people did not dare to retaliate because the state of "Fear of freedom" was always comparable. These birds do not have to go for their food but will be brought by someone. The wings are weak because they have not been used for a long time. When released from the cage,Scared of danger, these birds did not fly away and returned to their cages. Fear of confrontation with wild birds and fear of feeding themselves, so they are afraid to live independently. [2, p. 67]

Freire describes the "powerlessness" of the villagers in "silent culture" because the voices of the countryside are usually not heard due to two reasons: 1) To be labeled uneducated and foolish by society. Therefore, society does not need to value useless villagers. 2) The rural villagers themselves view themselves as worthless. Because it is in a humble culture that causes them to lose confidence in themselves, they do not dare to stand on their legs in the meantime instead preferred the dependence of others. As a result, it has been repeatedly produced through family systems and bank education, which destroy the community's thinking, analysis, and voting. Also, cultural aggression worsened the villagers' lack of belief in themselves. Under such conditions, the empowerment process could not take place.To empower the community, Freire sees the need to dissolve the "silence culture" first. To provide villagers opportunities to think, analyze, and speak through Informal small-scale dialogue or "cultural groups" activities.To provide a platform for community members to exchange ideas fully. This activity will be an important factor in creating creativity. It also resulted in the villagers to gain more confidence and raise their "conscience" level. [2, pp. 38-39]

The King's philosophy is a science that arises following the principles of work, understanding, Connecting, and developing King Rama IX that he applies to people, material, society, environment, and culture.The tool has been used in many royal projects that comprise a variety of ideas. [7, pp. 543-546]The researchers chose the volunteer spirit group's appropriate principles, the "Understanding, Connecting, and Developing" work principles.[8, p. 205]

Understanding is understanding problems that exist. Whether it is understood through personal experience and research and being prudent and careful in obtaining accurate information can lead to a correction. The use of empirical data is the understanding of various statistical data.For example, population, number of households, analytics, and research can draw academic or government agencies to join research with the community or volunteer spirit group to bring academic principles to understand problems and propose development or solution solutions. Experiment till actionable results are to do it repeatedly and take the lessons down and build a model.

Connecting is inside-out blasting. People or groups of volunteer spirit must have the intention to develop themselves first. They are not waiting for the development of government policy only. Understand target is the needs of the community that they want to solve any problems.If the problem is too big, the volunteer spirit group Can reflect the problem to anyone or any agency as for the problems that can be achieved, solutions Because the volunteer spirit group is the individual or target group, Educate the use of easy-to-understand language to communicate with the volunteer spirit people or group. To create understanding and awareness of problems that must be resolved together.

Development must start with Self-initiated a volunteer spirit group must not coerce others to join the development concept must be self-imposed.He suggested, in the story of the inner explosion, Self-reliance emphasizes self-action.Prototype and role model brings

knowledge to build a reliable model for dissemination to the community, or other volunteer spirit groups can be applied. Use by doing this, and people will learn from the prototype and be an excellent inspiration for the development of the people and the nation.

Volunteer's concept is the spirit of giving willingly, not expecting compensation, sacrificing time for others and society, focusing on development, including emotional and social support, such as providing love, care, tooling, material support, and information.

Public consciousness refers to a ready person's psychological traits, the desire to help solve problems and devote themselves to the common good.Including the use and treatment of shared objects, there are many levels from the family, community, and society levels.

Public consciousness = Public mind is an essential component of civil society, which is part of the civil society theory. So, the volunteer spirit concept is in three principles;[9, pp. 3-5]

1.) Helping others is to use services to solve problems, share items without expecting anything in return.

2)Sacrifice for society is the sacrifice of one's own time for others willingly.

3) Development focus is to pay attention to changes or problems that occur in society, communities, ideas for the development of society, communities, and organizations. As well as develop activities promoting volunteer spirit to develop a creative and diverse community society appropriately [10]

V. RESULTS

After processing the documents, the researchers created a body of knowledge to train the representatives of the three groups of volunteer spirit groups, namely, The King's philosophy, the principles of understanding, connecting, and developing, the volunteer spirit concept and empowering the community. Especially the silent culture dissolution to enhance skills and knowledge for the three groups of volunteer spirit

groups after the training, the researchers performed three steps as follows:

A. *After the training.*

From the observation, most of the volunteer spirits knew only the Sufficiency Economy Philosophy. Only a handful of people have studied The King's philosophy; most others lack the confidence to answer a questionnaire. It may be because they worry that the answer to them is wrong from others. Later, it was found that after the volunteer spirit group training in Nakhon Chaisri District, it will bring knowledge to practice such as being a good example, bringing knowledge to expand results and applying, inviting members to become a volunteer spirit voluntarily. In conjunction with the volunteer spirit group, Phutthamonthon District, such as inviting others to join to understand The King's philosophy, to build unity in the community through essential days, use guidance and step-by-step approaches, including help the people in need.

While the volunteer spirit group, Sam Phran District, suggested that they could develop community potential when trained by creating learning to realize by clarifying when there was community meeting among the elderly, senior school, grouping in the community for good deeds. Subsequently, it was found that the main principles understood Connecting and developing to solve problems in the community, the volunteer spirit group, Sam Phran District provides information that it is understood, that is, understand the condition of the community, with precise information. Villages visited to ask about problems such as the disabled, the vulnerable, bedridden, and the elderly, with a team of volunteer spirit visiting. To develop, there is training at various learning centers. Simultaneously, the volunteer spirit group in Nakhon Chai Si District gave the information that Understands the problems that arise in each community. Connecting by sincere help, with

unconditional love, develop him not to change his way of thinking So life will change.

Finally, the volunteer spirit group in Phutthamonthon District gave information that the principle of understanding is to apply the principles of understanding that already exist in the community and apply them and what the community needs and foster intelligence for children and women.

B. *Discussing problems in the community.*

After the first part of the training and discussion, the researchers conducted a second-semester discussion or discussion to allow the threevolunteer spirits to apply the concept of community empowerment that they had just trained.The dissolution of "silent culture" that everyone has to say and address issues, big or small. Participants are then asked to vote on a critical issue for the community and the volunteer spirit group, which can be used to create their own dialogue activities and design activities to prevent or mitigate them.In this section, the results of the study are as follows: volunteer spirit group, Phutthamonthon district, presents problems such as garbage, drugs, air pollution, consciousness, dengue fever. Next, the volunteer spirit group, Nakhon Chai Si District, present their problems at the meeting, such as the Tha Chin River's invasion, different ideas, game addicted youth, and lack of harmony. Finally, the volunteer spirit in Sam Phran district presented their problems at the meeting, such as garbage problems, family problems, income problems of disabled people.

Figure 1: Model of Volunteering for CommunityEmpowerment with the King's Philosophy.

Regarding aid, the three groups wanted to make the community more conscious, including helping with various resources from government agencies.

C. *Voting is an important issue and can be created as an activity as a volunteer spirit.*

In the final phase, the researchers organized a forum for all panelists to present their problems during the second phase to exchange and raise support from the other participants.The vote results showed that the volunteer spirit group, Phutthamonthon District, the majority voted "garbage problem" as an urgent and essential problem and able to create activities under the volunteer spirit group to solve the problem. Subsequently, the majority ofvolunteer spirit, Sam Phran District, voted on the "garbage problem," which was consistent with the Phutthamonthon District problem. Because these twodistricts are connected and have a metropolitan condition adjacent to Bangkok, finally, the volunteer spirit group, Nakhon Chai Si District the majority of voters voted for "The Tha Chin River invasion problem is an urgent issue and can create activities under the volunteer spirit group to solve the problem.

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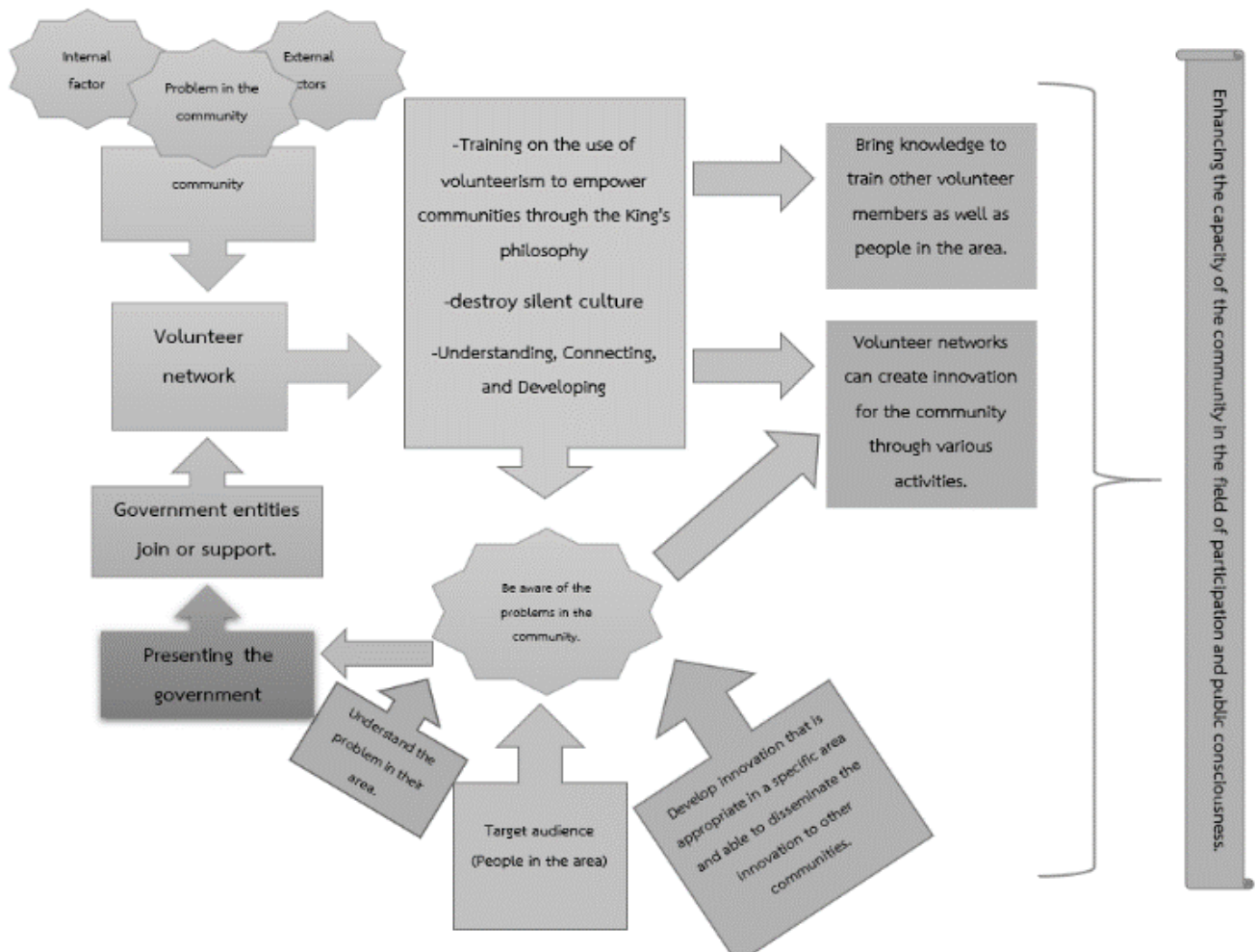
VI. DISCUSSIONS

Research studies have shown that empowering communities through training to dissolve silent culture can increase the community's potential in participation because everyone can identify the problem and work together to seek solutions. This includes a case study on the community's role in forest fire co-operation of Arifudin, et al.[11, p. 131],explains that strengthening communities to empower them to participate in sustainable rural development.The indicators are empowerment and motivation for them to solve problems and make independent decisions. Make it competent, have the skills to plan and implement environmentally friendly practices. It is consistent with Brinkerhoff & Azfar [12, pp. 5-6]that members of the community work together to increase influence, increase control, and jointly decide on issues that directly affect them.Under which members have sufficient mutual benefits that they can create incentives for them to act together. Also, the implementation of the principle of understanding, connecting, and developing to analyze the community's problems also corresponds to the explanation of the driving committee of The King's philosophy that studies the concepts of King Rama IX[8, p. 205]. Therefore, the results of research, training, and dialogue are valuable to apply to other communities.To drive and disseminate knowledge of The King's philosophy to develop community potential to be sustainable.

CONCLUSION

From the training and data collection, it was found that the volunteer spirit group will use the

knowledge gained to develop community potential around participation and public mind such as building unity on important days, inviting people to join the network tosolve problems in the community jointly. Connecting target groups or asking vulnerable people and developing a training facility or learning center in various fields and to jointly monitor the community.Finally, understand the problems that arise in each community, connecting with sincere help, unconditional love, and developing them not to change the way they think life will change.All of this demonstrated that the volunteer spirits were aware of their problems and needed to apply the knowledge from the training to problem analysis, especially problem understanding, connecting target groups, and developing solutions.

Besides, during the community dialogue, the researchers found that volunteer spirit members could independently reflect the problems they encountered and practiced the individual members' silent culture dissolution.The researchers voted to decide which is the most important and which volunteer spirits can design activities to address.The resolution results found that the volunteer spirit group in Phutthamonthon District and Sampran District had the same opinion and resolution as "The problem of garbage in the community."The volunteer spirit group in Nakhon Chaisri District voted that private encroachment on the Tha Chin River was the most critical problem.From such a problem that the researchers can create a process of creating a circuit or a model "using volunteer spirit to empower the community with The King's philosophy."To be an innovation for the volunteer spirit group in Nakhon Pathom and other provinces by applying the model accordingly.

Regarding the garbage problem, the researchers propose a solution by campaigning and using the 3R waste separation concept model and creating a recycling bank.To allow the volunteer spirits of both areas to continue to organize waste reduction campaigns through the model.The problem of encroaching on the Tha Chin River will use a form of integration to pressure government agencies and use the media, social media, as a channel for disseminating news and problems.

Finally, this research has also found that bringing the existing volunteer spirit groups in the existing areas to training and increasing their skills to become the volunteer spirit network empowers the community with The King's philosophy. They can perform activities better than other groups because the volunteer spirit is familiar with government agencies. Especially in the district and local government organizations, this familiarity comes from participating in activities with each other, whether it be important days, activities for receiving royal hats and scarves, etc.The researchers found that the volunteer spirit group is a group of people with strength in social capital.When organizing community empowerment activities or to resolve community problems in the future, it may be well-coordinated with government agencies, and the activities will be easier to achieve than those organized by other groups.

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The Environment and Guidelines of Administration to Develop Innovators Among Secondary Science Teachers at Saint Gabriel's Foundation, Thailand

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Abstract— The purpose of this research was to study the environment and guidelines of administration to develop innovators among secondary science teachers at Saint Gabriel's Foundation, Thailand. Quantitative and qualitative researches were used and research tools were questionnaires and open-ended questions. The data has been gathered from 11 secondary school directors, 110 staff at the management level and 149 secondary science teachers at Saint Gabriel's Foundation, Thailand in the academic year 2020. The quantitative data was analyzed by descriptive statistic, whereas content analysis was used to analyze qualitative data. Results indicated that strengths of the environment to develop innovators among secondary science teachers were school systems, management styles of directors, creativity skills of teachers, critical thinking skills, information technology and communication skills, share value, participatory work and teamwork. The weaknesses were school strategies and structures obstructing innovator development of teachers, lack of innovative process knowledge, and entrepreneurial and financial skills. The opportunities were technological advancement, social and political conditions that affected the development of innovators. The threat was the slowdown of economic conditions of students' families and communities. According to the study, the five guidelines for the development of innovators among secondary science teachers, developing school strategies, developing school structure, promoting teacher innovator development, learning and coaching, and networking were found.

Index Terms— Innovator Teacher, Innovator, Educational Administration.

I. INTRODUCTION

Innovation is an important factor of the determinant of competitiveness and national progress. Many countries have adopted national strategic roadmaps to foster innovation and enhance its economic impact [1].

Thai society has been changed to knowledge-based learning and innovations. The promotion of new policy of Thailand 4.0 which is consistent with the 12th National Economics and Social Development Plan (2017-2021) [2] focuses on the urgent necessity of using science knowledge, technology, and innovations which is less operated in the present to enhance the competitive ability, the value chain of agricultural production, industries, and services. Nowadays, Thailand encounters an issue of quality on all sides such as people, educations, public services and public services. Moreover, the rate of inequality in Thai society is high. One of the immense issues which is focused during the 12th National Economics and Social Development to raise the potential of the country is the development of innovations and driving the innovations to develop every dimension of the country.

The national Scheme of Thai Education (2017-2036) [3] is the master plan for institutions related to education to apply it as the framework for educational development. The vision "All Thai are able to access to quality education and life-long learning, live happily consistently with sufficiency economy philosophy and the 21st century world changes" is valued. To achieve the visions and aims of the educational management, 2 goals have been set in the National Scheme of Thai Education. The first goal is Learner Aspiration aiming to develop every learner with the 21th century characteristics and learning skills (3Rs 8Cs), and 5 Aspirations. The 3Rs 8Cs consists of 3Rs which are reading, writing, arithmetic and 8Cs which are critical thinking and problem solving, creativity and innovation, cross – cultural understanding, collaboration teamwork and leadership, communications information and media literacy, computing and ICT literacy, career and learning skills, and compassion.

The second goal is 5 Aspirations comprising access, equity, quality, efficiency, and relevancy. Hence, institutions and teachers have to be directly relevant to learning management to achieve the objectives of the educational management.

Teachers are the professional personnel who are responsible for teaching and support learners' learning by using various methodologies in public and private schools [4]. They play important roles in educational management since their duties are to manage the learning process, train, and teach students to have knowledge, specific skills, and ability to encounter various situations. Therefore, teachers are essential personnel for Thai educational development [5].

The progression of technology leads to shift of previous to the modern learning model which is one-way learning, teachers are the only resource transferring information to students, to self-learning which students are able to learn by themselves. For this reason, it is necessary for teachers to improve their skills to be consistent with the changes [6]. According to Sinlarat [7], presented the education 4.0 which develop learners to produce products that clearly reflect new idea and new system called "innovation." Leading learners to enable to create the innovation, development of both teacher and students' skill is indispensable. Furthermore, skills, knowledge, understanding about innovation process, needed-skills for creating innovations, and innovator are necessary for teacher improvement which improve them to be able to lead students to be innovators.

The Saint Gabriel's Foundation of Thailand [8], the private organization, is managed by Roman Catholic priests called Montfort Brothers of St. Gabriel. The organization was founded in 1715 by Saint Louis-Marie Grignion de Montfort in France. Members of Montfort Brothers of St. Gabriel work around the world; in Thailand, they have been worked in the first institution Assumption College since 20th October, 1901 to the present. Nowadays, there are institutions located in the central, northern, east and north east of Thailand under the management of St. Gabriel's Foundation; 14 institutions providing the basic education, 2 institutions for vocational school, and 1 university. The school management has to be changeable due to the world changing and educational policy; school directors value teacher innovator development to organize classrooms and prepare students to the international world. The results of the study are valuable for teaching professional development and affect student quality which is consistent to educational revolution policy. Moreover, the basic education school administration can profitably apply the results as guidelines for the school in the future.

II. RESEARCH OBJECTIVES

To study current and desirable conditions of administration to develop innovators among secondary science teachers at Saint Gabriel's Foundation, Thailand.

III. RESEARCH METHODS

In the research, a mixed-method which consisted of qualitative and quantitative researches was used to study the current and desirable conditions of administration to develop innovators among secondary science teachers at Saint Gabriel's Foundation, Thailand. The data collection was divided into 2 periods; the first period is the qualitative data collection which is not only the conceptual framework of the research, but also basic data for quantitative data collection in the second period. The data has been collected from 11 secondary school directors, 110 staff at the management level and 149 secondary science teachers at St. Gabriel's Foundation, Thailand in the academic year 2020. Apart from data collection, in data analysis, data from the questionnaires was analyzed following these steps. The first step was to analyze background information of the respondents by using descriptive statistic to enumerate frequency and calculate percentage. The second step was to analyze the current and desirable conditions of administration to develop innovators among secondary science teachers at Saint Gabriel's Foundation, Thailand by using SPSS program for windows to find the average ($\bar{x}$) and standard deviation (S.D.). Both overview and classified environment which were inner and outer environments were analyzed. Next, the technique Modified Priority Need Index (PNImodified) was used to analyze the data from the second part of questionnaires to find S-W-O-T and identify the necessary requirement from the $PNI_{modified}$ formula as presented [9].

$$PNI_{modified} = \frac{I - D}{D}$$

$PNI_{modified}$ is Modified Priority Need Index
I   is the desirable conditions
D   is the current conditions

Research process of this research has developed into 4 steps consisted of literature review, research design and instrument construction, data collection and data analysis, and to discussion and conclusion. Steps were shown in Fig. 1.

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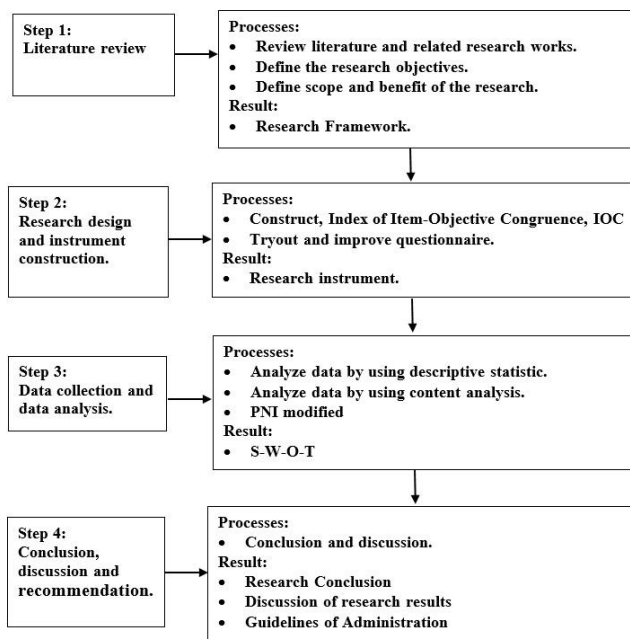
Fig.1 Research process for study the environment to develop innovators among secondary science teachers.

IV. RESULTS

1. The analysis of content validity, reliability of the questionnaire. The findings showed that the values of construct, the questionnaire was checked by 5 experts. It found that Index of Item-Objective Congruence (IOC) of all items was above 0.600. Therefore, the questionnaire was appropriate to use. The Cronbach's alpha statistic for reliability analysis was proved for the questionnaire with the result 0f 0.970 in current condition and 0.980 in desirable condition. This indicated that there was acceptable reliability.

2. The results of the analysis of the average ($\bar{x}$) and standard deviation (S.D.) of environment to develop innovators among secondary science teachers at Saint Gabriel's Foundation, Thailand are shown in Table I and the recommendations of the guidelines of administration to develop innovators among secondary science teachers at Saint Gabriel's Foundation, Thailand are presented in the Table II.

Table I. The average, standard deviation, and PNI$_{modified}$ on the environment to develop innovators among secondary science teachers at Saint Gabriel's Foundation.

Environment to Develop Innovators Among Secondary Science Teachers	Current condition		Desirable condition		PNI modified
	$\bar{x}$	S.D.	$\bar{x}$	S.D.	
1. Strategy	3.69	0.61	4.46	0.47	0.207
2. Structure	3.63	0.66	4.46	0.49	0.229
3. System	3.67	0.65	4.50	0.51	0.226
4. Style	3.90	0.63	4.60	0.47	0.178
5. Staff	3.64	0.65	4.51	0.52	0.240
6. Skills	3.71	0.55	4.58	0.46	0.235
7. Share Value	3.84	0.60	4.61	0.47	0.200
8. Social Conditions	3.62	0.63	4.48	0.50	0.236
9. Technology Conditions	4.06	0.58	4.61	0.46	0.136
10. Economic Conditions	3.55	0.61	4.32	0.54	0.219
11. Political Conditions	3.61	0.65	4.43	0.58	0.227

Table II. The Recommendations of the guidelines of administration to develop innovators among secondary science teachers at Saint Gabriel's Foundation, Thailand.

The guidelines of administration to develop innovators among secondary science teachers	Frequency
1. Establish strategies to develop innovators of teachers and clearly set Key Performance Indicators.	n=76
2. Add more agencies of the innovator development of teachers and students in the management structure.	n=75
3. Identify the innovator development of teachers in teachers' job descriptions.	n=87
4. Set teachers' innovator development plans and put it into action with constant monitoring and evaluating.	n=65

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	The guidelines of administration to develop innovators among secondary science teachers	Frequency
5.	Encourage and reinforce teachers to develop innovator.	n=82
6.	Select teachers to develop innovators and skills according to their aptitude.	n=73
7.	Provide training and knowledge for teachers to develop innovator.	n=95
8.	Appropriately allocate time and necessary resources for the innovator development of teachers.	n=70
9.	Create teamwork culture for teachers to exchange knowledge of learning management and innovation development.	n=73

V. DISCUSSIONS

The study of the current and desirable conditions of administration to develop innovators among secondary science teachers at Saint Gabriel's Foundation, Thailand had interesting discussed issues as shown below.

1. The results of the study of environment of administration to develop innovators among secondary science teachers at Saint Gabriel's Foundation, Thailand which were from 270 returned questionnaires found the strengths, weaknesses, opportunities, and threats are as follows,

1.1 Inner environment of institutions which is divided into 7 parts [10] is as follows,

S1. Strategy

The strengths are setting strategies, visions, missions, objectives, major strategies, minor strategies, establishing action plans and projects of school which encourage developmental innovators of teachers. However, the weakness is the evaluations and conclusions of projects, and reviewing the strategies which obstruct developmental innovators of teachers.

S2. Structure

The strengths of structure of inner environment in institutions are curriculum structure of the school, appointment order of the activity committee and establishing duties and responsibilities of teachers which encourage the developmental innovators of teachers provided in the school. In contrast, there are weaknesses impeded the innovator development which are setting agencies followed the structure and inappropriate allocating time discouraging the developmental innovators.

S3. System

The management system with specific roles, duties, and frameworks, supporting of budges and technology to develop innovators of teachers are the strengths, whereas lack of system which reinforce teachers to develop the innovators is the weakness. Moreover, teachers are not involved in the planning, framing, and organizing the teaching schedule is a big problem as well as the development of innovators is not a part of the consideration of promotion and advancement.

S4. Style

The strengths of the inner environment style of institutions consist of the style of school directors which encourage teachers to apply and create innovations for learning management, the supervising, and monitoring of the innovator development valued by school directors. Having less opportunities to share ideas of innovator development and creating various lesson plans of teachers are the weaknesses. Besides, the inadequate team-based learning and innovator development adversely led to bad effects.

S5. Staff

The evaluation plan of teacher development project, effective applying the teacher development project, and the constant self-improvement of teachers about innovations are strengths. Furthermore, the teaching schedules which are appropriate with the ability of teachers is the major strength. The weaknesses of the staff found are lack of an analysis of needs for innovator development among teachers, the teacher selection for the developmental inventor process, designing, setting developmental activity of innovators, and the inadequacy of teachers who specialize about innovations.

S6. Skills

The strengths are teachers are able to initiate and create new things. Critical thinking, idea connection and integrated management, systematic learning and management, leadership, effective communication are the great advantages. However, lack of innovative design to create new innovations, entrepreneurial skills, marketing skills, cost management, including income management are weaknesses. Besides, the valuation of creating innovations for learning management, establishing connections between outer agencies, team-based learning, creating innovation competition, lack of time for studying and developing innovations, and integrating innovation process with learning management are disadvantages.

S7. Share Value

The strengths are teachers' sacrifices for development, and enthusiasm to cooperate in potential development provided from school. Moreover, being responsible and altruist are the strengths. The weaknesses are school do not review the corporate performance between each department and the school to evaluate the activities. In addition to lack of understanding about innovator development of teachers for learning management, teachers hardly work in team and focus on innovation also use less innovations for the society.

1.2 Outer environment are divided into 4 parts as shown below,

A. Social Conditions

Memorandum of Understanding (MOU) of teacher development between schools and outer agencies, the support and help of teacher trainings from network schools, and the learning resources which support teacher to develop the innovators are opportunities. On the contrary, lack of support from public and private agencies, ineffective local cultures to the innovator development of teachers are threats. Moreover, domestic child birth rates affect innovations of teachers.

B. Technology Conditions

The essential role of technology to develop creativity, the progression and variety of technology which encourage the innovator development among teachers are the opportunities. Nonetheless, the threats which are technology of outer learning resources obstructing the innovator development, lack of technological systems to consistently develop teacher innovators are found. Furthermore, technology used as media cannot decrease time and cost of teacher innovators development.

C. Economic Conditions

The opportunities are the supported budges from external funding sources for innovator development, the competitor schools affect the innovator development, also the overall economic conditions. The threats are economic conditions of parents, families, and communities that affect the innovator development.

D. Political Conditions

Policies of innovator development from an original affiliation, the political changes which stimulate the innovator development are opportunities. However, threats are the educational and the innovator development policies of government, the standard of the innovator development among science teachers set by the professional associations.

2. According to the data collection, the results of the guidelines of administration to develop innovators among secondary science teachers at Saint Gabriel's Foundation, Thailand were discovered and the researcher divided the guidelines of administration to develop innovators among secondary science teachers into 5 guidelines as shown below.

2.1 Developing School Strategies

The implementation of developing school strategies, setting the Key Performance Indicators (KPI), and establishing teacher innovator development plan including the continuous monitor and evaluation were agreeable with the strategic plan of Saint Gabriel's Foundation, Thailand [8] which focused on the effective encouragement and development of Brothers and teachers, knowledgeable, skilled, and be able to effectively work according to the professional standards.

2.2 Developing school structure

Adding agencies which develop innovators of teachers and students in the organizational structure of the school was consistent to the strategic plan of Saint Gabriel's Foundation, Thailand [8] which intently developed human resources of schools in the foundation to be systematic and competent.

2.3 Promoting of teacher innovator development

Encouragement and reinforcement of innovator development of teachers, identifying the innovator development of teachers in teachers' job descriptions, teacher selections to develop innovators and skills according to the aptitude, providing appropriate time and necessary resources for the innovator development of teachers were agreeable with the recommendation of Tangjuang [11]. The consideration of self-improvement which organized the communicative habits for working space, expressing admiration to teacher who improve themselves by providing them a chance to present their work, facilitating or providing factors encouraging the self-improvement of teachers were mentioned in the recommendations.

2.4 Learning and coaching

Providing training and knowledge in innovator development of teachers assented to the study of Yosyingyong [12]. According to the study, the personnel was a person who created innovations. Thus, the organization had to provide education or training for the personnel to be knowledgeable and be able to connect it with creativity and entrepreneurs to use innovations. Moreover, Wongthongdee [13] said that the individual development could be done in various ways such as training, providing educational management for personnel, the development through working experiences, and the development through the interaction with colleagues.

2.5 Networking

Creating teamwork culture for teachers to exchange learning management knowledge and innovation development was agreeable with the education of Office of the Education Council [14]. The development of Professional Learning Community (PLC) of teachers and teacher network was one way to support teachers, administrators and educational personnel. They could develop and change themselves to organize effective learning management which responded to different educational contexts. As reported by Dyer [15], creating the efficient idea network helped innovators create processes, products, and services which were advantages: similarly, the study of Widodo and Gustari [16] reported that Knowledge Management, creativity, and Organizational Citizenship Behavior were essential antecedents for innovative behavior.

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Ritual of ancestor Sacrifice and Social Function in the Veda and Thai People

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Abstract— The objectives of this academic article aimed to 1) to study the ritual of ancestor sacrifice in the Veda and Thai society and 2) to study the theories of folklore influenced toward the way of life of Vedic people and Thai society. The results indicated that the ritual or ceremony is a kind of activity and function in all human beings' society which related to and arranged by a doctrine, religion, or belief of tradition and culture for alchemy, supernaturalism or good fortune, etc. Ritual of ancestor sacrifice is a kind of belief in the Vedic period which is worshiped, performed, and continued from that time until the present. Vedic people believed in their ancestors' spirits and so did Thai people. Both people in the two nations believed that the ancestors' spirits could punish their relatives who had bad behaviors but help those who had good behaviors. Both nations have still believed that ancestors' spirits can provide them goodness and badness so they usually have to perform the sacrifices to the ancestors. Then, the ritual of ancestor sacrifice has become the deep belief of two cultures, unify, and create people to be a unique and happy society under their belief.

Index Terms— *Ritual, ancestor Sacrifice, and Social Function, the Veda*

I. INTRODUCTION

The ritual of ancestor Sacrifice has been rooted in all societies of human beings since prehistory period until now. Most of the human beings have believed in ancestors' spirits, supernaturalism or animals' spirits, etc. This kind of belief is still settled in their deep minds and then reflected in the folklore, way of life and ritual of people in all societies. Ancestors' spirits came from the members of each family who died especially the grandparents or respected ones. Human beings have believed that dead grandparents will become the ancestors' spirits, and they can provide good, evil, prosperity or calamity to that family. Vedic people and present Indian people also have believed in ancestors' spirits, when some member in the family died, they would perform the sacrifice to those spirits. They were afraid that if they did not perform the sacrifice, the ancestors' spirits would not satisfy and could punish them to get undesirable things. So people in each period have to perform the sacrifice on the appropriate occasion. Thai people also have this kind of belief. Each year, they have to perform the sacrifice to dedicate some materials and goodness to their departed relatives or ancestors. The ritual of ancestor sacrifice of the two nations has been their functions which they have to do at the appropriate time and has become the driving force or

impulsion to build unity and happiness in each society according to their belief.

II. Ritual or ceremony

Bidhikamma means ritual action that completes the wanted result or ritual action that leads the wanted action. It's the mutual activity of community, the tool that trained self-control or the basis to develop other virtues such as training the body and speech to be in self-control which causes to make happiness happen in that society. [1]

Bidhikamma is an activity, culture, tradition, and behavior that human beings supposed it up by intention according to their beliefs, has its steps in clear communication and action to attain the hope, happiness, abundance, rich, safety, and other objectives that one expected. [2] It is a way to create the fundamental discipline, support spiritual power to live together, living one's life and the beginning point to develop other virtues higher by the principle of Bidhikamma in that religion. It is the beginning point to train the body and speech to be in self-control to do religion or community activity together to reach the goal.

III. The Vedas

The Vedas scriptures, in the general meaning of Indian people, have not focused on alphabet terms but these have been inherited orally, and maintained in this character many

thousands of years called "Oral literature." Furthermore, these scriptures were continued by many generations of Indian people by oral without any word changes. [3] Oral transmission about the story in the Vedas is very strict. Brahmins have believed that the Vedas are the Holy Scriptures, oldest books of Hindu literature called "Saruti" which means disclosure or revelation, hearing from the gods. The term "Veda" means knowledge or wisdom but the term "Riga" is the prose to praise the gods, so, when combined two terms, Rigveda, means the prose wisdom, primitive wisdom, has the holiest one of Aryan people and classifies into many groups of hymns to praise their gods. [4] The Vedas are divided into 4 scriptures: 1.) Rigveda is the scripture to collect mantras to praise the gods, has the priest pray mantras while performing the ritual. This scripture is believed the oldest one of Brahmins. 2) Yajurveda is the scripture mentioned about the rules of how to perform the sacrifice, ritual, and suggestions used in the Vedic sacrifice. 3) Samaveda, it is the scripture collected many kinds of poems prepared to pray in each time of ritual performing including the rhythm of praying in ritual performing. 4) Atharvaveda is the scripture that happened in the late period, and the collective source of mantras, spells, incantations, rules, or ways of using the black mantra and white mantra according to their objectives.

The Vedas are considered as the important sources of Indian civilization, literature, wisdom's storehouse and ancient ancestors' thoughts through many generations. Time and their experiences have preached and trained their thoughts to be concrete and developed to have 4 scriptures. The teachings of the Vedas are divided into 3 types: 1) Karmakanda means the practices for making merit, 2) Upasanakanda means meditation practice, and 3) Jyanakanda means spiritual knowledge to attain the gods.

IV. Theories of Folklore

This theory explains the role of folklore, the way how to live in each society and culture of the people, myths and various genres of myths, the role of play as a story in the folk society, and it also relates to other types of cultural information to analyze interesting social conditions. [5]

This theory considers that other parts of cultures in society have a duty to be responsible for the needs of human beings on both sides; on the basis of social and psychological stability. In the part of folklore, different types of stories, songs, plays, beliefs, and rituals are responsible for human psychological needs and helping to strengthen culture in each society. Therefore, the cultural study of folklore should consider the social contexts to find or highlight the importance of information that helps a society to sustain itself stably. One key thinker, Bronislaw Malinowski, said, "The characters of the story are very important. But if they are no the contexts, they appear to be something inanimate ...

The original stories live in the community society, but they are not alive on paper." [6]

Bascom explains that each type of folklore may have a different role, and some may have many roles, so he classifies different functions of folklore into 4 types: 1) It uses for the sources and reasons in performing the rituals, 2) It functions to educate in the telling society, 3) It keeps a standard of the custom behaviors of the society, and 4) It provides the amuses and way out of discomfort or anger to the person. [7] The Folklore theories according to Siraporn Nathalang's methodology in the analysis of myths and folklore described the 4 kinds of roles and duties of the folklore as Bascom wrote as a framework for presenting the roles and duties of folklore into 3 main kinds: [8]

1) The role of Folklore in explaining the origin and identity of community and rituals. Almost traditional societies do provide the importance of ritual performing, and it is found that traditional societies have many rituals in daily life such as the passage ritual, the new production ritual, the ritual worship of supernaturalism and the ritual of calendar in each month, etc. Then, traditional societies, and rituals have been become the matter of each community. The rituals are the unity of people in society. Each time of ritual performing causes to make the community's members having stable feeling, warm, and happy. So, the rituals are the mechanism to create the feeling of "the same group," and community's identity.

2) Roles of Folklore in education, social order training, and maintaining social behavior standards: In illiterate societies such as tribes' society, hill tribes' society including literate society but they still use tradition to tell a story in teaching the culture such as the society of Thai farmers. The folklore has been the important mechanism to function an "education institute" to teach the knowledge, culture, local wisdom, attitude cultivating, social order training, and maintaining the standards of morality and pattern behavior accepted by society reflected through many types of folklore namely; lullabies or cradle songs, tales, proverbs, riddles, plays or shows, etc. [9]

3) Folklore's role in finding out of personal grievances arising from social rules: The first two topics mentioned above may be considered that it is the role of folklore in society, but folklore also has a direct role; psychological role. It is because the folklore can offer "alternatives" that can compensate for what humans desire but cannot do in real life and also offer "solutions" to problems arising from the strict social rules which made the society members frustrated or being uncomfortable unable to speak or express when there is a conflict in their minds. Therefore, folklore has a direct role in presenting the spiritual "solution" to human beings in society, especially folklore in the genre of miraculous tales, tales, jokes, songs, singing and folk games. [10] Folklore, especially fairy tales with imaginations use symbols to

represent social reality, society is therefore a social mechanism that extends "refuge" or a place where human beings can escape from the real world to temporarily stay in the world of fantasy (Escape in Fantasy). [11]

All of these ideas have shown that each type of folklore has different functions. Legends help to explain the identity of the people and explain the origin of each ritual. In a traditional society, the ritual is a very important cultural mechanism for building unity in the community and strengthening the people. Local fiction helps to build a feeling of attachment and familiarity with "their local." Moral stories, fables, stories about animals, nursery rhymes, proverbs, riddles, children's play are all involved in providing knowledge, cultivating values and training social order among members of society which is equal to Folklore has served as the "Educational Institutions" in a traditional society.

In summary, the theory of roles and functions of folklore in society is considered that elements of a culture such as system of belief and religion, family system, government system, educational system, recreation system, they all serve to help, provide the spiritual and social security. Many kinds of systems that are social or cultural mechanisms have their functions. It is comparable to organs in our bodies, they all have different functions that will make the bodies survive together. If any organ in the body is unable to function, it will have an impact on the health of the body, and so are various cultural systems. If they are able to perform their duties well, that society will live and operate well too. Therefore, it is said that roles of folklore are the part of the cultural system.

V. Ancestor and sacrifice

Ancestor means a person related to you who lived a long time ago, a person who is several generations earlier in an individual's line of descent. [12]

Edward Burnett Tylor, a British anthropologist, whose Primitive Culture (1871 developed the thesis of animism, a view that the essential element in all religion is the belief in spiritual beings. According to Tylor, the belief arises naturally from elements universal in human experience (e.g., death, sleep, dreams, trances, and hallucinations) and leads through processes of primitive logic to the belief in a spiritual reality distinct from the body and capable of existing independently. All things are believed to possess spirits that are their effective and animating elements; for example, primitive peoples generally believe that spirits cause sickness and control their destinies. Ancestor worship, prevalent in preliterate societies, is obeisance to the spirits of the dead. Fetishism, the veneration of objects believed to have magical or supernatural potency, springs from the association of spirits with particular places or things and leads to idolatry, in which the image is viewed as the symbol of a spiritual being or deity. [13]

Ancestor rituals according the Rig Veda and Atharva Veda (1200–1000 B.C.) include hymns for both inhumation burial and cremation, the verses telling about construction of marker of earth and rituals performed by mourners on behalf of both the living and the deceased. Later, Brāhman texts describe a Citi (mound) to be erected on the burning and burial ground as replica of the Agnicayana Shrauta sacrifice, a cosmic soma ritual that the deceased had performed with a thousand bricks to create an altar of fire and regenerate the world.

Vedic people believed the death and nurture of ancestors who concerned with the disposition of the body in Antyeshṭi, the "final sacrifice." People in this period believed that a new body awaited the deceased in heaven no longer prevailed, they had to do the ritual construction of a temporary body for the disembodied "Spirit" (Preta). It is a brief passage for entering the status of "ancestor." When the deceased became a Pitri in an otherworldly realm of ancestors, there would have ritual sacrifices to nurture that ancestor during all stages of advancement toward another rebirth. All of this proceeds from the doctrines of karma and Samsāra that emerged with a new worldview in the early Upanishads. These late Vedic texts distinguish between the Pitriyāna (path of ancestors), which leads to the moon, an abode from which the departed return to earth and a new existence, and the Devayāna (path of gods), which goes to the sun without return or rebirth. The moon retains an important cosmic role in ancestor rites today, as do the moral implications regarding the effect of action (karma) upon the fate of the deceased in rebirth (Samsāra). [14]

Ancestor worship or sacrifice of Hindu people called a ritual of Pinda offering or Sraddha ritual. This ritual has been performed from the ancient time [15] Hindu people have believed in this ritual that the dead and living people want the same necessary things. The dead wanted to have meal, drink water, and consume many things like living people at all. When someone died, it had only a body decayed by its nature but there is one thing still remains, not decay or die as like a body that is each one's spirit (Vinnana). Thus, the dead's relatives had to do this ritual when the family's members died.

Characteristic of Piṇda like a small ball made of rice or meat mixing with milk, curd, and flowers. [16] Sometimes, ancestor worship was called "Pitriyajña." It is one of the great five sacrifices in the past. To perform this ritual is a duty of married son. He will perform it daily. Hindu people believed that a family leader or father regarded as a high Brahmin in family and a controller of the family's ancestor worship. He is believed that he is an expert and has knowledge of special ritual practiced continuously. Thus, it is his duty to care and nourish it without any changes and then teaches how to carry on this ritual for a son to train him to be a high Brahmin instead.

In the present, Hindu people approximately two-three hundred thousand like going to perform Sraddha ritual at Gayasisa villadge, Buddhagaya sub-district. They have believed that dead cremation is Avamonggala but Sraddha ritual is Monggala. Moreover, they have believed that when someone died, a physical body only was died, this corpse will be burned at all but a dead spirit still remains in a state of jinn, ghost or Preta and circulates or goes around its cremation place. Ones cannot go anywhere because one does not have the body, feeling, it causes to make him or her lack of internal sense-fields or external sense-fields in perception. They have believed that spirit of a departed in the jinn condition, unpurified and always worries about many things. Relatives had to perform some ritual first, a dead's spirit would have rebirth.

Thus, to purify unpurified condition of a jinn or ghost, the relatives have to perform Sraddha ritual for the departed after ones died 10 days by building the Rupa or body for the jinn to be possessed called "Sukhuma rupa or subtle body." The Jinn or Preta will dwell this subtle body going to own appropriate sphere or existence whether it will be heaven or hell. So after died 1 day, a dead's relatives would offer Piṇḍa rice or sticky rice molded as a small ball, placed on a container or banana leaf with rice and variety of desserts. On the second day, the relatives would perform the sacrifice like the first day by believing that Piṇḍa rice and many foods prepared by relatives would rebuild the sense-fields: eyes, ears, and tongue, for the ghost or Preta to make him have feeling or emotion.

On the third day, the relatives performed the same sacrifice. They believed on this day that food would become an energy to build a neck, shoulders, arms, chest and other organs according to a number of the sacrificial days performed. On the ninth day, the jinn or Preta will have a complete body and on the tenth day, it will have hair, beard, and nails and he will become Pitri or ancestor. Then, his skin color or complexion will become bright or pure and finally an angel or deity. Sraddha ritual has another name "Pitriyajna" which means to worship the departed ancestor. This ritual has been performed before a religious system happened. It has appeared that almost group of people in this world has been performed this ritual in their houses or sanctuaries. The mantras used in this ritual is Samaveda.

On the eleventh day after died, there is the great Sraddha. The relatives began a ritual by pouring water to dedicate goodness to a dead, imploring or pleading the deity such as Visnu come to accommodate for the jinn or Preta. Hindu people believed that by doing this way, a dead could cross the great flood of Samsara. Here are some Vedic verses mentioned about ancestors and ritual:

"…'With offspring, with increase of wealth', he says; verily he abides in this world with offspring and with cattle. 'Homage to the gods', he says, for homage is the due of the gods; 'svadhá' to the Pitrs', he says, for the svadhá call is the due of the Pitrs." [17]

"…l May the Vasus, with the Rudras, protect thee on the east; may the Pitrs whose lord is Yama, with the Pitrs, protect thee on the south; may the Adityas, with the All-gods, protect thee on the west; may Dyutana Maruta, with the Maruts, protect thee on the north [4]; may the gods, whose chief is Indra, protect thee from below and from above…" [18]

Vedic Pitriyajya was the ritual to dedicate good things for the departed in order to express the relatives' remembrance or mournfulness, love, relationship, unity, and gratefulness towards the parents, siblings and relatives. This ritual had been since the human beings lived in the cave and were developed respectively according to the traditions, cultures, and community's belief.

VI. Ancestor and Sacrifice in Isan Region

Thais in northeastern region or Isan has believed in Supernaturalism and Animism for a long time like many Thais in other regions. This kind of belief has inherited from their ancestors and has influenced toward the way of life of Isan people for a long time before they accepted Buddhism as their refuge in the present. In the past, Isan people believed in the natural spirits, gods, goddesses, ghosts, holy thins or sacred items and belief of Thaen etc. Jit Phumsak said that the primary religion of Thai race is Animism. They had believed that the gods or Devatas were their ancestors and inherited from Thaen god. In the present, the current of this thought has changed gradually because of new development and technology but its trace has been appeared in many forms of traditions and rituals in many areas of Isan region such as rocket festival, dance for Pheepha or Pheethaen (dace for aerial gods to cure some diseases) or ritual of morale making etc. [19]

Sisak Wallipodom pointed out that spirit belief in Thai society has been a long time and affected on social being and psychology. Tradition of spirit belief in Thailand has related to Buddhism and Hinduism from the past until now. This belief is not only limited by a dead but it is covered to other environments which believed that it's holy and supernatural power such as earth, sky, rivers, mountains, and trees. [20] Although most of Thai people have believed in Buddhism but it still has an interpolation and blending of spirit belief among religion such as when people made merit, they have to pour ceremonial water for dedicating goodness to the dead and ancestors.

The research result entitled "Phipakam : the belief in ancestor spirits of Thais-Kouy (Soai) in Surin province," found that Phipakam is spirit haunted in Pakam skin (lasso for hooking a wild elephant). Local people have believed that there are 2 kinds of spirit: Phragru is a holy spirit which had status similar to deity and ancestor spirit in lineage of elephant-fed family or mahout. They have believed that

Phipakam can give both benefits and disadvantages to human beings. So they do always sacrifice to this spirit. This belief is not limited in the Kuay group only but it can be found in general people performed this career. Phipakam is not only the spirit haunted in lasso for hooking an elephant but it empowers greatness and safety of life to devotees. [21]

Isan people in each area have belief in ancestors' spirit differently in details. Most of family has to perform the sacrifice to their ancestors every year on the appropriate time because they are afraid that if they do not perform the ritual or sacrifice for the ancestors, they will be punished and do not get all benefits in their life. This kind of belief still remains in life of Isan people now.

VII. Ancestor and Sacrifice in Northern Region

From a long history of Lanna people, they have believed in spirits many hundreds years ago. Its history mentioned that local tribe called "Luah" had lived around the hill area of Doi Sutheb before the king Mangray established Chiang Mia city on BE 1839. Lanna people and their belief of spirits could not separate clearly. In the present time, there have been a mixture of two cultures: local hill tribe and new comers. Their spirits' belief does not have much intensity like the past time. But most of people in this region still have had belief of ancestors' spirit and ceremony of sacrifice. This belief has more influence to the way of daily life which has seen from their custom, tradition many ceremonies of northern people such as when they go to the temples, whey will separate meals into 2 parts; one for the monks and another for sacrificing the ancestor's spirits. They have believed in many kinds of spirits because each spirit has different duty such as ancestors' spirits have a function to protect the relatives and family; Phi-arak or areas' spirits has a function to protect the community, village and city, etc.

When Lanna people have some activity to do or take a rest in the forest they always have to ask for permission from the spirits first or when they have meal in the forest, they will also offer food to the spirits or when they have to excrete or urinate in the forest they have also to ask for permission from the spirits. [22] These things have reflected the way of life of Lanna people mostly related to many spirits. So they have to perform a sacrificial ceremony on the month 4-8 every year. On this time, most of villages in the northern region perform a ceremony of ancestor worship such as Chiang Kham district of Phayao province perform the sacrifices to Phisueban, Phisuemuang or ancertors' spirit, Philuah, Phimod, Phimeng, Phipusae and Phiyasae, etc. [23]

The ceremony of ancestors' worship and sacrifice including other spirits of Lanna people have two main purposes: the first is to ask for a good health for the members of families, and the second is to ask for the protection from the ancestors' spirits and other spirits to take care all people in the community. So they have to perform the ceremony of sacrifice to the ancestors and other spirits every year. Now many people think that belief of ancestors' spirits and sacrifices are changed by new world and technology but we've still met a trace of this belief in many rural villages which called 'Horcauti or a cottage of the village's guardian spirits.'

Spiritualism of Lanna people might get a trace from ancestor worship in the past time. This belief has been grown up from animism of human beings around the world back to many thousand years ago in the ancient time. The animism is the primary source of spiritual belief and some religions. Anthropologists have determined this belief as the religion of pre-historical and historical societies. This belief still has still remained in many traditions and human beings' behaviors in almost societies. It seems that this kind of belief is still the co-characteristics of Tai-tribes or Lanna people. The spiritualism of Lanna people is the primitive belief before Buddhism was spread in this region. The perspective of Lanna people understood that human beings' world and spirits' world were complicated and related with each other. They have believed that spirits are in everywhere such as in the cities, villages, paddy fields, rivers, water, forests, mountains including houses, etc. These spirits can provide benefits and punishments to people, so they have to perform the ceremony of ancestor worship and other sacrifices every year to satisfy them. If someone has bid and inappropriate behavior, he or she will lose the benefit or get bad luck, so spirit has both a good and bad part able to build poverty and prosperity to everyone. This belief causes to make lots of benefits as follows: [24]

1. It is mental refuge. The northern people like to praise the old relatives or seniors. When they died, the successors have to set up a joss house for their spirits. When there has some problem in family, they have to worship and sacrifice to ask for help.

2. It is time to collect the near and far most relatives to meet and talk to each other.

3. It is time to introduce a future member to a family such as bride or bridegroom.

Lanna people and belief of ancestors' worship including performing the sacrifices to the spirits have reflected the primary belief of people in this region many hundreds of years ago. There are many tribes and ethnicities of local people in this region such as Taiyai, Taikhern, Taileu, Taiwon or Lanna people etc. All groups have believed in spirits, these spirits are in the way of life and everywhere. It is primary belief before Buddhism came to this region. They believe in spirits because these spirits can provide them both goodness and badness, so they have to perform the annual ceremony for ancestor's worship and spiritual sacrifices. This belief has reflected many reasons such gratefulness, harmony, and respect of natures and environments. Human being should not forget the ancestors' favors and natures.

VIII. Ancestor and Sacrifice in Southern Region

Thai society in the northern region has believed in supernaturalism, animism, gods, goddesses, and spirits like many regions of Thailand. This belief has gotten an influence from religion and mixed with local belief. [25] Local people have believed that many kinds of natures have invisible spirits behind, have more influence than themselves. These spirits can inspire them both prosperity and loss. This belief has been in the southern local people such as people in Hoi-khong district. They do still have the Wai-ritual of Ta-yay (grandparents worship or sacrifice). This ritual is the local wisdom to create an experience of living, rely on belief of ancestors' spirits, virtues of departed relatives to build the social power, unique and unity to the members of each family. [26]

One of most important rituals is Sarda in Nakorn Si Thammarat province. It is usually performed on the lunar month, on the waning moon 1-15 of the 10th lunar month. But people in Nakorn Si Thammarat province usually like to do this merit on 13-15 of lunar month. People in this region have believed that the ancestors namely: grandmother, grandfather, and departed relatives, if they did bid they would go to hell, become Preta, get suffering in hell for a long time, and have to rely on merit's result that descendants dedicated to live. So, on the first day of the lunar waning moon, sinners that called "Preta" were released from hell to the human beings' world to ask for good or merit from their descendants, and they would come back on the waning moon 15 of the 10th lunar month. The essence of this is as follows:

1. It notifies gratitude towards the departed ancestors trained descendants how to live in the present so they have to repay the done favor by dedicating merit to them.

2. It is a chance to unify the remote relatives, meet each other to make merit, and create intimate love among relatives.

3. It is time to make merit in a chance of agricultural products producing its results because it is believed that it is good and prosperous to ones and family.

Two rituals above represented that Southern people have believed in ancestors' spirits for a long time before Buddhism spread in this area. When the members in each family died, their bodies were cremated or buried on local tradition, religion or belief, but they still believe that it remains something, not cremated like physical bodies; their spirits especially grandparents' or respectful spirits. These spirits can give them good luck or all kinds of prosperity if the family's members have good behaviors, but bad luck or all kinds of ruins if they had bad behaviors, do not pay attention or ignore family's ritual or ceremony.

IX. Ancestor and Sacrifice in Central Region

Local villagers called "Thai Song" in many districts of Nakhon Pathom province believed in their ancestor spirits for a long time and became dominant identity of this community. Most of local villagers have still believed in ancestor spirits strictly. Every family has to build a shelf for household spirit, perform "Padtong" ritual every determined day. The sons, daughters, and children in each family have to follow their belief, perform a ritual, and continue this belief until the present. [27] According the great scholar of Thailand, Sathaingoset, he divided Phee into 2 kinds: 1) natural ghost, it occurred from spirit of a unit of the universe gods and goddess etc., and 2) ghost or Phee occurred from spirit of a departed one in each family.

It could be both common ghost and bad ghost able to give both benefit and blame or punishment. [28] Everyone pays respect and follows traditions and ritual about ancestor spirits severely. They have believed that the ancestor spirits could provide them both benefit and blame or punishment. When one practiced well, Phee or spirit would give one's benefit. When ones practiced badly, did something wrong or violated good tradition of community, it would give a punishment. When spirit gave benefit, one has to reward or repay by offering foods and water. [29]

People in the center region of Thailand have also believed in spirits for example "Thai Mon." Mon people like to call spirit as Pheemon. It means family spirit or primary spirit of each family that they pay respect or believe for a long time. [30] They have to perform the sacrificial ritual for family spirit 1-2 times every year according to the way of life in the community. When they have the family's sacrificial ritual in family, they have to follow; 1) prohibit to do the sacrificial ritual on Buddhist holiday or Wanpra and other days, and 2) prohibit to do the sacrificial ritual on the Buddhist Lent festival, each family has to perform it on the even months; month 6 or 12.

A performer is called "Tong" not limiting sex and age, has to understand how to do every step in this ritual according to the continued right belief. Every Mon community has a ritual performer. He performs the ritual to cultivate, build conscious mind of gratitude toward his or her ancestor's spirit and importance of family's spirit. In each performing the ritual, Mon people have to follow their belief and old culture that their ancestors have been inherited a long time unchangeably which cause to make self-respecting in identity of Mon ethnicity. This kind of ritual causes to make harmony and unity in every family, reflects the way of life and belief, and can control the behavior of people in community going on their old practices rightly.

Mon people have believed that the family's spirits do always take care of and protect their sons and daughters from all kinds of dangers. Family's members have to respect the spirits, perform the sacrifice ritual strictly. Every year, everyone in each family has to do the sacrifice to their ancestors. The important idea is as follows: 1) This ritual has a role to cultivate popularity of gratitude toward the deceased

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ancestors. 2) It can cultivate popularity of monogyny that will be seen in the steps of ritual. 3) It can cultivate the right social manner or behavior when ones have to stay or take a rest in another family. Mon teenagers should not tease each other in house area and a wife and husband should not make intercourse in other family.

X. DISCUSSIONS

When we considered all details mentioned above, we found that Thai people in all regions have believed in ancestors' spirits before Buddhism spread in this country. In each region and ethnicity, they will perform the ritual of ancestor sacrifice differently. Their sacrifices may be food, dessert, clothes or necessary things according to their belief in each place. Every year, they will find the appropriate occasion to do the sacrifice for their ancestors' spirits. When they got the good day, they will invite their relatives from another place to do this ritual together. If someone could not come, he or she has to send some money to support this ritual. It has reflected that this ritual is the good way to cultivate gratitude, system of monogyny and right social behavior in their family and community, and it could teach the family's member how to live together happily.

Conclusion

The results indicated that the ritual or ceremony is a kind of activity and function in all human beings' society which related to and arranged by a doctrine, religion or belief of tradition and culture for alchemy, supernaturalism or good fortune etc. Ritual of ancestor sacrifice is a kind of belief in the Vedic period which is worshiped, performed and continued from that time until the present. Vedic people believed in their ancestors' spirits and so did Thai people. Both people in two nations believed that the ancestors' spirits could punish their relatives who had bad behaviors but help them who had good behaviors. Both nations have still believed that ancestors' spirits can provide them goodness and badness so they usually have to perform the sacrifices to the ancestors on the appropriate time every year. Then, the ritual of ancestor sacrifice has become the deep belief of two cultures, reflected unity, and created the social functions to people to be unique and happy society under their belief.

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Development of a Non-Formal Education Process to Promote the Awareness in Living Together with Care in Urban Communities: A Case Study of Bann Krua Nua Community

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Abstract— The aims of this research were to 1) development of a non-formal education process to promote the awareness in living together with care in urban communities, and 2) propose guidelines for raising awareness in living together with care in urban communities with the non-formal education process. Participatory action research (PAR) was conducted in Ban Krua Nua, Thanon Phetchaburi, Ratchathewi, Bangkok. Research participants comprised community leaders, community committees and community residents of Ban Krua Nuea. Data were collected by observation, interview and group discussion. Research instrument's included interview form, data recording form and the researcher. Research data were analyzed by ways of content analysis. The findings were as follows; 1) A non-formal education process to promote the awareness in living together with care in urban community of Ban Krua Nua community consisted of 5 process namely, 1) perceive the problems 2) planning 3) implementation, 4) conclusions and 5) reflection and 2) The propose guidelines for raising awareness in living together with care in urban communities with the non-formal education process derived from the area and jointly developed with the Ban Krua Nua community and the group discussion which consisted of 8 components as follows; 1) "Participation" included participation in sharing, thinking together, doing and creating together. 2) " Happiness" included willingness to participate in activities and happy to participate in the activity. 3) "Learning" included learning by itself learn others learn community as well as learning to live together in society. 4) "Conservation" included love and good will, love and care for the people in the community, maintain the traditions and culture of the community to continue. 5) " Creative" included the initiative to create activities, know how to solve problems in order to develop the community to be progressive and sustainable. 6) "Coordination" included coordination and having unity. 7) "Acceptation" included accepting and learning each other accepting and listening to others' opinions and 8) " Knowledge" included knowing the role and function of yourself, knowing the traditions, laws and knowing the changes of the world.

*Index Terms— **Non-Formal Education Process, Living Together with Care, Urban Communities***

I. INTRODUCTION

In the past, the way of life of the people in the community would have been kinship or well-acquainted with each other until they were close relatives. Therefore, helping each other with generosity is spreading out to each other, but nowadays each person has more responsibilities. Therefore, they rarely had time to meet and talk. In addition, some people in the community have migrated to other places and someone from other places has arrived again. It causes much more distance from each other than in the past (Daranee Thawinphiphatkul, 1998) [1] related to Jintana Sujjanan (2013) [2], who spoke about the way of life of the people in the community that has changed, there are major reasons as follows: 1) increase in population causing the community to expand as a result, the way of life of the people in the community has changed until the problem of slum communities. 2) The technological

development, when the country is prosperous, technology is used to facilitate. Therefore, the way of life of the people in the community has changed as well. In current situation, harvesting vehicles are used instead of human labor. Telephones were used for general communicated with each other. 3) Economic development, as a result, it has changed in various fields including production, employment, such as in the past, focusing on production for subsistence in order to have food and use within the family, community, but now it has become a production for trade and export, and 4) culture from other places due to the convenience and speed of communication, it has rapidly adopted cultures from other places such as culture, dress, expression and eating. In addition, Jintana Sujjanan (2013) [3] said that Thai lifestyle has changed, linking Thai way of life with foreign cultures, causing world cultures to spread into Thailand through globalization and cyber fast. This is an important

factor affecting Thai culture in terms of way of life, attitudes, beliefs, interpersonal relationships. Learning process and consumption behavior Thai people seek happiness and create a more personal identity. There is a tendency to build social networks through the cyber world, creating many contemporary sub-cultures, forms of integration of individuals who are interested in the same subject, but cannot express Thai identity clearly.

Study Center and Peace Development (2007) [4] states that when society consists of diverse groups of people inevitably creates problems or conflicts due to the diversity of different groups of people. These conflicts range from the smallest to the largest. The smallest level is the individual, because everyone has internal conflicts, for example, in a decision to take a certain action, it is up to the individual whether he chooses to act or not. Later, it is the family with the smallest social unit, but it is the most important is that the family will consist of the differences of each member in gender, age, education, as well as the status and roles in the family. Finally, the largest unit such as community, society, country or international as at the Office of Women's and Family Activities the Ministry of Labour and Social Welfare (2009) [5] analyses the current situation of Thai families that they are facing three major problems: 1) The family structure and function have changed, resulting in the family being unable to function properly. This can be seen from the smaller family size. More women served as the head of the family. Families have more parents raising their children alone. The elderly is abandoned more homeless or homeless children. Family members are unable to fulfil their duties, for example, their spouses do not act as a good partner. Parents do not train, instruct and raise their children, but instead pushes the elderly or the nursery to act instead. Family members do not have time to be ready to engage in activities together. 2) The deterioration of family relationships. This can be seen from the increasing divorce rate. There is an increase in domestic violence and sexual violence against children and women, lack of good communication and learning to live together, and 3) lack of morality, ethics and quality, inability to be self-reliant. There is competition that take advantage of selfishness and consumerism spending more than you have to have debt Therefore, it can be seen that from the family level, community, society, country, all have to face the problem of differences and conflicts. It is the country's prosperity center, that is, a center for government administration, trade, banking and the largest industrial area. There are various basic services. The economy and society are at a higher standard than any other city. Therefore, it has a high economic attractiveness. As a result, most regions and cities are under the influence of Bangkok. It is also an attraction for people from rural areas struggling to migrate to Bangkok. From the current social phenomenon, it was found that the progress of urban communities causing the migration of the population in rural areas, there is more to urban areas. When the urban population density increases, there were changes in the economy, society and various problems which corresponds to the era of Srisak Wallipodom (2558) [7] that said Bangkok today is full of new vehicles and buildings. There are a number of people who flock to make a living in the capital until the overwhelming population of the city. It only increases from the aforementioned problems, the livelihood of Bangkok residents is poor, and lack of humanity because everyone has become selfish. The reason for this is because society in Bangkok lacks a community [8]. Saowapa Pornsiripongse and others (2007) [9] conducted a preliminary study on the Baan Krua Nuea community found problems in the community of Ban Khrua Nuea, including 1) in the community there was a split, and lack of unity, 2) people in the community have not received the necessary information in various fields, and community activities community actions, 3) People in the community still cooperate in meetings disseminating news of lesser communities, 4) more immigrants from other provinces due to their urban centers, and 5) have environmental problems (Garbage/sewage) and crime problems.

From the aforementioned problems, it is imperative that we find ways to help raise awareness of coexistence among the people living in the community. Most of the relevant research studies focus on social, cultural and economic problems, but no research has yet studied supportive coexistence. Therefore, the researcher is interested in studying the coexistence of the Ban Krua Nuea community by applying a non-school education process to raise awareness of the coexistence of the Ban Krua Nuea community so that able to coexist with others in society in a normal way, bringing peace to oneself, others and the country, as non-formal education has its objectives and goals to provide people with the basic knowledge necessary to lead to use in life to have knowledge of applying in the profession. Receive knowledge of news that is up-to-date, morally, and morally able to coexist with others in society normally. It can face problems, think and analyze the situation, able to seek knowledge and choose to receive knowledge from various sources, used to improve the quality of life and solve problems appropriately as well as being able to adapt to the constantly changing social and environmental conditions.

II. RESEARCH OBJECTIVES

The purposes of this research were 1)to develop of a non-formal education process to promote the awareness in living together with care in urban communities, and 2) propose guidelines for raising awareness in living together

with care in urban communities with the non-formal education process.

III. RESEARCH CONCEPTUAL FRAMEWORK

This research uses the concept of lifelong education and the concept of living together as the main concept in this research.

Concept of Lifelong Learning (Livelong Learning) Lifelong Education Institute (2008) presents education that leads to the concept of lifelong education. Education is a lifelong process of mastering the intrinsic nature of understanding human nature. Education should open the way for a person to become the best and perfect human being possible.

The concept of living together (UNESCO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), describes an approach to educational management for the 21st century. The "four pillars of education" that are the core of education management in the 21st century consist of four aspects of learning: Learning to know, Learning to do, Learning to live together, and Learning to live be.

IV. RESEARCH METHOD

A. Target Group and Research Process

This research was action research with applied Participation Action Research (PAR), which Kemmis and Mctaggart (1990) [10] and Knowles, Malclom S. (1984).[11] defined action research as a research that reflects performance beginning with operational planning, observation and reflection. It is research that requires a participant in the process of reflecting on the practice in order to make corrections, improvements and developments for the better the participatory action research is divided into 4 steps as follows:

1) The planning phase (Plan) begins with exploring the problem that needs to be solved. Researchers and stakeholders jointly plan and explore the state of the problem. What is the problem that needs to be solved? Who is the problem related to? How to fix it? What corrections need to be fixed? Analyze problem conditions as a guideline for systematically finding the structure of the problem review aspects of the problem, discuss a wide range of problems with research participants or other stakeholders. This will make the problem more clearly visible.

2) Action phase is the concept of planning activities to implement. When doing action, a critical analysis is required, accompanied by a list of stakeholders which will return information. How well is the planned plan performed? What are some obstacles in this practice? Therefore, the planned program may be flexible.

3) Observe, while the research is carried out according to the planned activities, observation must be followed and write down all the events that are expected and not expected by what is observed. Operating process and the results of the operation which while the research operation is being carried out in conjunction with the observation results appropriate techniques should also be used to help gather information.

4) The Reflect phase is the final stage of the operational research cycle. It is the assessment or examination of a process, problem or obstacle to the operation for which the researcher and the relevant person must examine the process, problem or obstacle to the operation through discussion of the issues that will be guided by the development of the action steps and form the basis of information that leads to improvement and planning of further action.

The scope of the research was as follows: The target groups that participate in the development of non-formal education processes to raise awareness of a supportive coexistence in urban communities are community leaders, and community committees of 20 people in Ban Krua Nuea community and target groups who attended group meetings to propose guidelines for living together in the urban community with the non-school education process, including experts in non-school education, religious leader, community development leader, Ratchathewi District, Baan Krua Nuea Communit, and leader and representatives from the community of 15 people.

B. Research Instruments

1. Development of educational processes of a non-formal school system to raise awareness of supportive coexistence in urban communities. The research instruments were (1) a basic record containing the location of the community and the establishment of houses, the history of the community from the beginning to the present, population and economic characteristics of the community, community environment learning resources in the community, and the condition of problems arising in the community. Does the community have a learning center? Does the community have any quarrels or conflicts? Do household people participate in public activities for the benefit of the community? Whether the community has a community plan and whether the community plan has been implemented or not. (2) Community survey, looks like a checklist of general information about the community, public service in the community, (3) Semi-structured interviews to obtain information on conditions, problems, causes, obstacles, and needs of supportive coexistence in urban communities; and (4) Rating scale questionnaires to assess standardized activities.

2. The presentation of practices in raising awareness of a supportive coexistence in urban communities through non-school education processes. The research tools were

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open-ended critiques, allowing respondents to express their opinions freely.

C. Data analysis

The researcher performed the data analysis as follows:

1. Analyze the basic information of the community by classifying the data and presenting it in descriptive writing.

2. Analyze qualitative data from interviews by using content analysis.

3. The questionnaires were analyzed from the activities using mean and standard deviation.

4. Analyze data from focus group discussion by using content analysis

It is open-ended for respondents to express their opinions freely.

V. RESEARCH FINDINGS

1. Process of education non-formal school system to raise awareness of supportive coexistence in urban communities is divided into 5 steps: 1) problem perception, problem analysis of the community; 2) Reasons for coexistence in the community building a mutual learning agreement and defining learning activities to comply with the agreement, 3) Action, learning through hands-on actions, 4) summing up results, including summarizing the results of the activities, and 5) reflecting on the review such as the completion of the activities.

2. The results of the activities to raise awareness of a supportive coexistence in urban communities found that the participants showed good interest and cooperation in doing activities. The overall satisfaction was at the highest level, the mean value was 4.79. Overall, it is at a high level and the average was 2.92. Results of the AAR (After Action Review) review of post-work learning activities on organizing awareness-raising activities in a supportive coexistence in urban communities found that what we thought was doing well, able to carry out activities to achieve the goals that have been set, and everyone in the community attaches great importance to participating. Factors that contribute to doing well include planning meetings and prepared in advance and receiving cooperation from people in the community as well. Problems and obstacles include the participants are not diverse and the days spent doing too little activity. The solution is to organize activities should not be specific, just on holidays, may be scheduled to organize all important activities of the government, holy day, or an important day of the community and suggestions for improvement and development, including determining the community development activities is another main activity of the community. In addition, the community will benefit directly, and indirect benefits will be attractive to those who want to visit the community, it will bring income of the people in the community.

3. Guidelines for raising awareness of supportive coexistence in urban communities through non-formal education processes. This is the result of a participatory Action Research area in Ban Krua Nuea community, Ratchathewi District, Bangkok, and brought to the meeting with stakeholders, consisting of experts' religious leader, head of community. Development and Social Welfare as well as representatives from the community by using focus group discussion and summarizing the results from the group discussion, it is a practice to raise awareness of supportive coexistence in urban communities through non-school education processes. To be used as a guideline or as information to support the community and organization of the network can be used. Found that consists of 8 or 8 principles, consisting of 1) "Participation", including participation in joint thinking and together to do and create together. 2) "Happiness", which is to participate in activities willingly and happy to join activities. 3) "Learning" is to learn yourself, learn others, learn community as well as learning to live together in society. 4) "Conservation" is to love and goodwill for each other, love and take care of people in the community and maintain the traditions and culture of the community to be persistent. 5) "Creative" to think creative activities and known to solve problems to develop communities to be progressive and sustainable. 6) "Coordination", including cooperation and have unity. 7) "Acceptation" is to accept and each each other, and 8) "Knowledge" means knowing your role and duty, knowing traditions, laws, and knowing the changes of the world.

VI. DISCUSSIONS

1. Fundamental beliefs of non-formal education process to raise awareness of the coexistence in urban communities give importance to the beliefs of people in the community who can learn to transform themselves to lead to a supportive coexistence in the community. It is consistent with the philosophy of non-formal education that is humanism and emphasizes humanity, recognize the differences between the individuals, accept the difference human development is therefore focused on individual development. Therefore, it must take into account the needs of the person and accept the knowledge and experience of the person which will be part of the learning process in which people in the community will see the changes themselves by analyzing the problems that arise in the community together. When encountering a problem, they will help each other learn to solve it leading to learning for changing oneself and the community. As a result, the self has been continuously developed, and the community has been developed to lead to a supportive coexistence.

2. Process of education in non-formal school system to raise awareness of a supportive coexistence in urban communities, as Sumalee Sangsri (2002) [12] and Sombat Suwanphitak (2000) [13] explained the principles and concepts comprising: 1) Building understanding for villagers to become aware of the problem and see the benefits and values for self-change. 2) Cooperation among villagers to jointly solve problems with steps. 3) Villagers can learn by themselves when what will be learned corresponds to the background community social context. 4) The learning of the villagers must be consistent and connected with the way of life and respond to the problems of the community, as mentioned in the principles of non-school education management must be related to operating conditions. For the content of activities and curriculum of non-formal educational activities, it should be flexible and varied. In addition, it should have many types of activities and many disciplines. The content of each subject of the curriculum should also be flexible to match the social conditions of each locality, and organize activities to blend in with lifestyle without being separated from life.

3. Principles used in the implementation of non-school education processes to raise awareness of supportive coexistence in urban communities. It is a principle to promote awareness of the community's problems that arise with themselves and the community and aims to evolve to change for the better, consisting of 1) Raising awareness of problems arising and appreciating self-change in order to deal with problems. 2) Motivation for self-transformation Non-formal education management is a learning process in order for learners to develop their potential to be those who have a habit of constantly learning and pursuing learning. It should be able to live a normal life in the midst of the rapidly changing society. 3) The creation of learning to be consistent and connected with the way of life and responding to the problems of the community. This is the principle of learning to make people in the community see the value of learning that it can actually be used to solve problems in life. Where non-formal education integrates learning with lifestyle related to the problem state life and community environment [14]. This is related to [15] said that problem-based learning is the best way to develop 21st century skills. 4) Encourage learning to transform yourself from action.

4. In implementing the non-school education process to raise awareness of supportive coexistence in urban communities, since each area or each community has different contexts or conditions, there are factors and conditions for applying the non-formal education process to raise awareness of the supportive coexistence in urban communities. This is consistent with the findings of Sumalee Sangsri (2002) [16], and Archana Ratanaubol

(2007) [17] as follows: 1) Having a working group or team with strength as mentioned in the objectives of non-formal education. The school said to promote democracy among the people. 2) The availability of places and resources to be used to learn. It will help make the learning process smooth and continuous. 3) Time availability of the participants the learning process. 4) Various communication and efficiency.

5. Guidelines for supportive coexistence in urban communities through non-formal education processes, from the research results, it was brought to the guidelines for a supportive coexistence in urban communities through non-school education processes, including 8 items: 1) "Participation", namely participation in joint thinking, together to do and create together. 2) "Happiness", which is to participate in activities willingly and happy to join activities. 3) "Learning" is to learn yourself. Learn others Learn community as well as learning to live together in society. 4) "Conservation" is to love and goodwill for each other, love and take care of people in the community and maintain the traditions and culture of the community to be persistent, known to solve problems to develop communities to be progressive and sustainable. 6) "Coordination", including cooperation and have unity. 7) "Acceptation" is to accept and learn from each other, and 8) "knowledge" means knowing your role and duty, knowing traditions, laws, and knowing the changes of the world. The application of the guideline depends on the context of each area in which it will be applied accordingly [18]. This is in line with Wisani Silarakul (2001). [19] which identifies two components of the guideline. Which must be set in accordance with the goal and the guideline of the guideline must be consistent with the objectives for the implementation of the activities in that goal which the destination of an activity. There may be guidelines for a variety of actions. On the other hand, an approach may be for achieving more than one goal.

VII. RECOMMENDATIONS
A. Recommendations for the use of research results
1. Recommendations for Local Community

1.1) Local communities can apply the educational process outside the school system to raise awareness of the supportive coexistence in urban communities and apply them to the context of the community. It can be applied in the application of learning activities. It can adjust or reduce the educational process outside the school system according to the context of each community.

1.2) Local communities should promote the participation of new generations. In learning activities by emphasizing the participation of a diverse group of people such as gender, age, occupation, religion, and should encourage and allow youth to use their energy and ideas. Brain power is to create according to his age and experience reflecting

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their views on the community or linking the community to external situations that they have or have experienced in. This will help diversify the learning process and more all around.

1.3) Local communities should provide opportunities for external agencies to participate in and support the community in the form of a learning activity development network. Third-party organizations may support in various forms such as finance, human resources, technology, communication, coordination and academia. Local authorities should work proactively by continuously seeking various external partnerships.

1.4) Local communities should create participatory communication channels for people in the community to use as a source for proposing needs. Exchange ideas Providing information through various channels, both personal media and technology media.

2. Recommendations to the development department

2.1) Ministry of Social Development and Human Security Bangkok Center for Non-formal and informal education as well as other communities and agencies developed indicators of complementary coexistence can be used to measure complementary coexistence in accordance with the nature and context of the target group to be assessed.

2.2 Responsible units or related units should focus on community development in respect of mutual acceptance and having a positive attitude towards individual differences to enable people in the community to be able to respect and accept diversity and to be able to live together happily with others.

B. Recommendations for government policy

1) The state should promote and support the building of national reconciliation and solidarity starting with promoting the community to have strength because if the community is strong enough to cope with various problems that can happen.

2) The states should implement non-formal education processes to raise awareness of the coexistence gained from this research, to define a frame guideline for promoting community coexistence, to provide agencies community development organizations can be applied or applied to the community appropriately and continue to be effective.

B. Recommendations for the next research

1) In the next research, knowledge Management may be used as a tool to acquire knowledge of the community.

2) There should be a practice guideline for raising awareness of supportive coexistence in urban communities through non-school education processes in order to know that it is appropriate and consistent with the situation of the local community other how far apart from Bangkok.

3) In further research, strong community indicators may be developed to be used in the process of increasing the ability community ability to coexist even more.

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Influence of Zen Buddhism on Buddhadasa Bhikkhu

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Abstract - Zen is one of Mahayana Buddhism which is propagated in China, Korea, Japan, Vietnam, and many counties in the West. In Thailand Zen was known widespread because of Buddhadasa Bhikkhu's translated works. Furthermore, he has studied and applied its teachings for developing Thai society through establishing Suan Mokkhabalarama. There is the center of study and practice the Dhamma which reflects the concept of Zen, such as Spiritual Theater, Curved Stone Court, Natural Uposatha, Dhamma Ships, Avalokiteshavara Bodhisattva's Statue, and Nalike Pond. These places are strongly influenced by Dhamma puzzle of Koan and Zen garden arrangement which emphasize the cultivation of wisdom, living simple and in harmony with nature. In the term of Dhamma teaching Buddhadasa Bhikkhu mixes the principle of Theravada and Zen teachings properly, that is the principle of working with empty mind.

Index Terms - *Zen Buddhism, Buddhadasa Bhikkhu, Suan Mokkhabalarama*

I. INTRODUCTION

Zen is one sect of Mahayana Buddhism. Many people around the world, in Japan, China, Korea, and Vietnam, believe in Zen. In the beginning, Zen originated in India and since the Buddha's life time spread to China and Japan. Zen in these countries has divided into two sects, i.e. Rinzai and Soto. Both of them have roles to develop the different aspects of societies and countries. Especially, Zen in Japan has played a role to create the Japanese cultures, such as Zen garden, tea ceremony, and samurai. Zen has three instruments of Satori or enlightenment as followings: Koan, Zazen, and Mondo. These are called Upaya Kosala Theory in hermeneutics which means the skillful method to teach. Its result is to attain the Buddhahood. These are the identification of Zen to get supramundane wisdom or Lokuttara Paññā.

Furthermore, Zen has mundane wisdom or Lokiya Paññā which is suitable to apply for developing worldly states. It might say that Japanese society is not based on Shinto only but also on Zen Buddhism to be the ideal or philosophy of Japanese cultures. Many European countries also practice Zen, such as Plum village in France where Ven. Thich Nhat Hanh has been teaching Rinzai Zen and propagating around the world, including Plum Village in Pakchong, Nakhon Ratchasima Province, Thailand. In the USA Daisetz Teitaro Suzuki has propagated Zen as a lecturer at American University since 1951. Even though Steven Paul Jobs, the co-founder of Apple Inc. has spent his life following Zen philosophy through reading 'Zen Mind, Zen Beginner's Mind' written by Shunryu Suzuki, a master of Soto sect.

II. ZEN BUDDHISM IN THAILAND

In Thailand many people study Zen and apply the lifestyle. One of them is Ven. Buddhadasa Bhikkhu who founded Wat Than Nam Lai, well-known as Suan Mokkhabalarama in Suratthani Province, southern Thailand. His lifestyle seems to be Zen Buddhism, even though he is a Theravada monk. His monastery appears as Zen style. He has also translated many Zen books, such as the Platform Sutra of Huineng who was the 6th Patriarch, the Zen Teaching of Huang Po, and Zen tales. For practicing meditation, many Thai monks have the same way of Zen tradition, such as Luangpu Dune Atulo, Wat Burapharam in Surin Province and Luangpor Teean Cittasubho, Wat Sanamnai in Nonthaburi Province.

Luangpu Dune preaches the teachings about 'the four noble truths' in the following:

On the first day of rain retreat in 1956 one senior monk of the meditation tradition came to pay his respect to Luangpu. After giving him the instruction and number of teachings on profound matters, Luangpu summarized the four noble truths as follows: "The mind sent outside is the Origination of Suffering (Samudaya). The result of the mind sent outside is Suffering (Dukkha). The mind seeing the

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mind is the Path (Magga). The result of the mind seeing the mind is the Cessation of Suffering (Nirodha)." [1]

Whereas Luangpu Dune preaches the noble truths briefly, Luangpor Teean preaches the method to develop awareness which has fifteen steps to move both hands while sitting cross-legged. It is the way to follow the four foundations of mindfulness (Sati Patthana). While moving each hand meditator has to be aware of moving. This method has no recited words and no need to close the eyes. Because of this practice, his teachings are compared with Huineng, the 6th patriarch of Zen. Both of Luangpor Teean and Master Huineng emphasize on simplicity and do not pay attention to ritual more than practicing. In addition, they have the same color of robes, i.e. dark grey which are similar to color of the ground. Hence, Luangpu Teean is known as master of practicing mindfulness by considering body movement and thought.

By the technical words, above masters teach in the same term of mind, for example Luangpu Dune talks about 'Mind is Buddha,' Master Huineng talks about 'Original Mind,' whereas Buddhadasa Bhikkhu talks about 'Empty Mind.' However, the details of teachings of Thai masters might not relate to Zen Mahayana directly. It is because the way to practice is the difference in concept and it depends on cultures, sects, and their own schools. For example, Theravada emphasizes on self-enlightenment first, and then helps people to attain it. But Mahayana emphasizes on helping people as Bodhisattva first. However, Zen by original is Mahayana but the way to practice seems like Theravada which tries to attain Satori himself first. Moreover, Zen is an applied school of Mahayana because it is related to new society to where spreads its teachings. For example, Zen in Japan is different from China and India because of its adaptation to these cultures. So, Buddhadasa Bhikkhu has said Zen is the developed Buddhism where it propagated the teachings. [2] In this article I would like to consider the concept of Zen according to Buddhadasa Bhikkhu which appears in Suan Mokkhabalarama.

(1) Background of Buddhadasa Bhikkhu

Buddhadasa Bhikkhu has the name which the King bestowed as Phra Dhamma Kosacariya, but he still call his own name as Buddhadasa, according to poetry that he wrote himself, the meaning is: *I offer this life and body to the Buddha, the Buddha is my master, I am the Buddha's servant. Thus, I am called 'Buddhadasa.'* He is a reformer who needs to develop the community of monkhood at that time. After leaving the monastery in Bangkok where he studied Pāli, he established a monastery in his hometown. This monastery was originally named Wat Traphangjik, an abandoned monastery located at Phumriang Village, Phumriang Sub-district, Chaiya District, Suratthani Province. He reconstructed it with his younger brother and four to five people and came to stay on Vesak Day, 12th May, 1932. This location had many wrightia religiosa benth

trees, so he gave the monastery's name as Suan Mokkhabalarama. Actually, these trees called Mok in Thai which is synonymous with Mokkha in Pāli and means liberation. Thus, this monastery represents the grove of the power of liberation.

In 1941 he moved to the new place which was called Khao Buddh Thong, meant 'Golden Buddha Hill.' It had natural Uposatha (Ordination Hall), the center of monastery which had over one hundred and twenty acres of whole land. Officially, it was known as Wat Than Nam Lai, meant that 'Monastery of the Flowing Stream' that ran down form Nang E Hill. But most of people knew as Suan Mokkh, meant 'the Garden of Liberation.' In 1989 he established Suan Mokkh International Dhamma Hermitage which was opposite side of the highway and approximately went 1.5 kilometer in distance as following map:
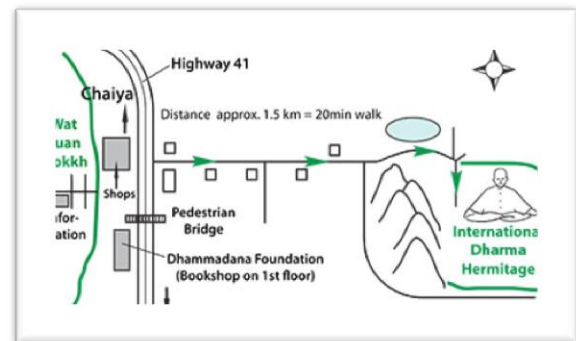
Fig. I: Map of Suan Mokkh International Dhamma Hermitage [3]

A sign at the monastery explains the meaning of Suan Mokkhabalarama in the following: 'A Mok Tree and a Phla Tree: tree whose names identify Suan Mokkhabalarama; mokkha means liberation, bala means power, and arama means shading grove; Suan Mokkhabalarama means the Grove of the Power of Liberation.'

(2) Construction within Suan Mokkhabalarama

Curved Stone Court

A lot of signs show the meaningful places at monastery, one of them is Curved Stone Court which has an explanation that 'it is one symbol of Suan Mokkh which is most suitable for practicing Dhamma; it is reflection of Buddhadasa Bhikkhu's ideal on what he needed people to practice at Suan Mokkh through talking with a tree and stone and learning conditioned things (Sangkhata Dhamma) and unconditioned things (Asangkhata Dhamma); nowadays here is the place for demonstrating alms giving, chanting, preaching, and meditating; all activities will start at 4:30 a.m.'

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Fig. II: Curved Stone Court [4]

Spiritual Theater

If we walk inside the monastery and reach the Spiritual Theater, a dominant picture of distributing the Dhamma eyes is shown on the front wall of theater building. It is a Dhamma puzzle that explained by Buddhadasa Bhikkhu's poetry in following translation: 'Spiritual Theater is a special work, it is for starting a love of Dhamma to people in mundane era and protecting themselves by facing Dhamma in this era. For this reason, I collect fantastic Buddhist arts from different periods and countries for cultivating wisdom of people who come to get tasting of Dhamma instead of sexuality. If Dhamma comforts them to feel good, they are able to escape from sexuality and prefer a beautiful monastic life which is the correct way of Dhamma.'

Fig. III: Spiritual Theater and Picture of Distributing the Dhamma Eyes [5]

Spiritual Theater is a new tendency in Buddhist architecture towards creating non-hierarchical sites for the teaching of Buddhist doctrine through aesthetic experience and leisure practices. [6] It is approximately ten meters in width and one hundred meter in length. Outside wall of building is curved by set of the Buddha's story and beside of building is arranged by group of rocks. It has two floors. On the 1st floor it has seven groups of Dhamma puzzle paintings as follows: 1) paintings of butterfly, dog, and deity that show around pillars of the building; 2) paintings form Monk Emanuel Sherman, American Zen Master that hang on the inner wall; 3) paintings of world and philosophy that hang on the inner wall; 4) paintings of proverbs around the pillars; 5) paintings of tales about the Dependent Origination (Paticcasamuppāda) that place on the stage in the middle of building; 6) paintings of Kaya Nagara (city of body) that hang on the inner wall; and 7) paintings of Zen that hang on the inner wall.

On the 2nd floor it has interior balcony to watch three groups of Dhamma puzzle paintings and pictures as followings: 1) pictures of Buddhadasa Bhikkhu spent his time in India that hang on a balcony; 2) paintings that concern with desire, hatred, and delusion on the wall; and 3) paintings about mustache of turtle and horn of rabbit on the beam. In addition, it has pictures and teaching instruments as followings: 1) picture of Tibetan Paticcasamuppada (Wheel of Becoming) on the wall; 2) picture of emptiness on a balcony; 3) symbol of Triple Gem on a balcony; and 4) a small room for recording.

All paintings or pictures are simply arranged. Some have explanation as poetry. First painting is dominant at the front entrance of building named 'sound of flute has returned to bamboo forest.' Buddhadasa Bhikkhu explained in poetry as following translation: 'Sound of flute has returned to bamboo forest. Please think about this message, bamboo that is cut to make a flute and have a good flute sound. Sound is returned to bamboo, it is as strong as it is fluted, like steam rising from the sea becomes a cloud and rains back to the sea. Like a desire that carries people to the world, when it ceases the power of birth, it runs into land of purity, do not wander somewhere. A state of disorder has come to emptiness. It is no way to go anywhere. In final, it ceases what has been done. So ceasing (emptiness) is essential of the Dhamma.' [7]
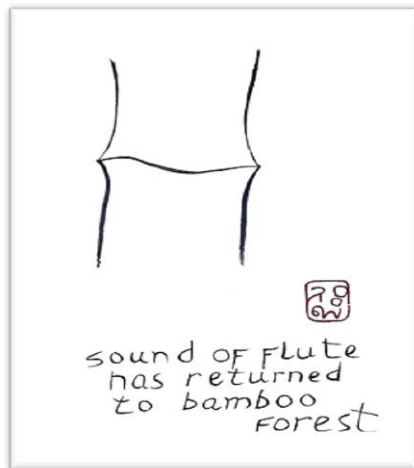
Fig. IV: Painting of Sound of Flute [8]

Dhamma Ships

The back side of Spiritual Theater has two sailing ships. The former one is called Dhamma Varinava Issarakul Naleumit. It is an explanation that 'it is like a ship for crossing the cycle of birth and death (samsara) to escape from sufferings, crossing from sufferings toward happiness and from ignorance toward wisdom. On the ship it has Zen garden, a tower of bell at the head, and Sanchi pagoda at the top floor of the tower. In the bilge ship it contains water as the tang.' The latter ship is called Dhamma Varinava. It is an explanation that 'in the bilge ship it is a tang of raining. Upper floor of ship is an ordinary hall for meeting, preaching while raining. At the head of ship is located the library named Mokkha Pannalai.'

Body Burning Memorial

Beside of Spiritual Theater has pathway going up to Uposatha or ordination hall around one hundred and fifty meters. When reaching this place, it has a wide area which is called Khao Buddh Thong. In the front part of area it has a big marble pillar about three meters in height and water drop at the top. It has four aspects and each one is fifty in width and one and fifty meter in length. Each aspect is written in four different languages, if walking along clockwise direction, i.e. Pāli, English, Thai, and Chinese. In the pillar it appears the messages as followings: here is the cremation of Buddhadasa Bhikkhu (Phra Dhamma Kosacariya), corresponding on 28th September, 1993 on Tuesday, the 13th of waxing moon in the 10th of lunar month.'

Fig. V: Body Burning Memorial [9]

Buddhadasa Bhikkhu got sick by having a hemorrhagic stroke. His disciples brought him to hospital for curing and invited to stay at monastery again until he passed away on Friday, 8th July, 1993 at 11:20 a.m. at Suan Mokkhabalarama. He was eighty-seven years old while he was sixty-seven years of monkhood. His body was simply cremated according to testament. Formalin injections for preserving the body, requiring royal urn, and any funeral rites (Monks' Chanting) were rejected as he mentioned in testament. He only allowed ancient religious rites, for example placing coffin on a catafalque, holding four long sticks at the corner of coffin, and tying white cotton cloth with the tips of these sticks to be the ceiling of catafalque. For burning body Panyananda Bhikkhu or Phra Tepvisutthimedi in the honor rank name at that time who was the principal to light a fire.

Natural Uposatha

Next to this marble pillar is Uposatha (Church). It is outdoor space which is placed by white sands, covered by sky, and some trees as the pillars and wall. This is different from another Uposatha and this is what Buddhadasa Bhikkhu wants to be benefited to the monks for doing their functions. White sand ground of Uposatha divides into three layers. It can contain the monks more than one hundred. At the top of ground it has merely the white Buddha's statue in the attitude of subduing Mara (Evils) sitting in the center ground. The statue is placed on the altar and a halo of six colors is behind it. At the feet of altar appears the messages that 'for remembrance of half of century of Suan Mokkh in B.E. 2525 (A.D. 1982).' In addition, it has pillars to demarcate the land of Uposatha according to the Vinaya (rules) for construction.

Fig. VI: Natural Uposatha [10]

The sign of monastery explains that 'it is the ground Uposatha along the nature like in Buddha's lifetime, around by the trees are wall, white clouds in the sky are ceiling, the treetops shaking along the wind are alive gable apexes. This place is for doing monks' services, considering all precepts, and candle light to walk clockwise proceedings. The lower ground is the place to burn Buddhadasa Khikkhu's body.'

Fig. VII: White Buddha's Statue within Uposatha [11]

Kuti Acariya Puja and Avalokiteshavara Bodhisattva's Statue

If we walk down from Uposatha along another pathway, Kuti Acariya Puja (residence for paying respect to teacher) and Avalokiteshavara (Guanyin) Bodhisattva's Statue are on the right-hand side. Sala Dhamma Ghosana (Pavilion for propagating the Dhamma) is on the left-hand side. The Kuti Acariya Puja has Buddhadasa Bhikkhu's statue for worshiping inside. Next is Avalokiteshavara Bodhisattva's Statue which is established in the middle of greensward with messages explained that 'Buddhadasa Bhikkhu built this statue from original one which was an antique bronze. It was found in Chaiya City. It was a symbol of Suddhi (Purity), Paññā (Wisdom), Mettā (Loving-kindness), and Khanti

(Tolerance). If you feel suffered or irritated by someone, you look at Avalokiteshavara's face and then it will make us feel comfortable.'

Fig. VIII: Buddhadasa Bhikkhu's Statue within Kuṭi Acariya Building [12]

Buddhadasa Bhikkhu defines the meaning of Bodhisattva that 'animal is that planting Bodhi tree which is wisdom for getting enlightened.' The important Dhamma of being Bodhisattva is called Bodhisattvadhamma or ideals of Bodhisattva, namely Suddhi, Paññā, Mettā, and Khanti. [13] 'Dhamma of Bodhisattva is of sacrificed and unselfish person. This is a real Bodhisattva who is preparing himself to become the Buddha, to destroy selfness and selfishness. When he gets rid of selfness, he will become the Arahanta, the Buddha.'

The reason that Buddhadasa Bhikkhu exhibits Bodhisattva's statue at monastery is that concerned with belief of Srivijaya Kingdom, the old kingdom of Chaiya city which believes in Mahayana Buddhism before. Also, his idea is strongly influenced by Zen Mahayana. Mahayana believes in Bodhisattva and practice goodness in order to become the Bodhisattva. Then, the basic concept of Mahayana emphasizes on Paññā and Mettā to help people escaping from sufferings more than finding the way like Theravada which emphasizes on the purity by escaping from sufferings himself first, then help people later.

Fig. IX: Avalokiteshavara Bodhisattva's Statue [14]

Fig. X: Buddhadasa Bhikkhu's Statue within Sala Dhamma Ghosana Pavilion [15]

Sala Dhamma Ghosana

The opposite pathway of Kuti Acariya Puja is Sala Dhamma Ghosana which is located near the Curved Stone Court. The front of this building has Buddhadasa Bhikkhu's statue in standing position and inside is for collecting his works and bones. Due to his testament, it was specified to keep his own bones under pedestal of Buddha's statue which was plastered by cement. And his ashes were divided into three pots for floating and scattering at three places in Suratthani . Ajahn Bodhi Candasaro or Phra Khru Palad Srilawat, abbot of Wat Than Nam Lai (Suan Mokkh) at the time, who was leader to float and scatter the ashes at the following sites: 1) Chong Ang Thong: it was at Mu Ko Ang Thong National park, gulf of Thailand where has brought bricks to build Spiritual Theater at Suan Mokkh; 2) Khao Prasong: it was a steep mountain where has kept pot of his family's bones; and 3) Watercourse of Tapi river: it was within Khao Sok National Park.

Floating bones in river and scattering on mountain are concerned with Dhamma puzzle. It just signifies that body returns to the nature. It becomes to four elements, namely earth, water, fire, and wind. It is the way to learn Dhamma from the nature and a real normal life.

Hall for Meals and Nalike Pond

If walking down form Bodhisattva's statue, it appears a hall for meals. Meal tables and chairs are constructed from cement as a long pedestal and almost fifty centimeters in height. Here, eating is a special and different from other because it has message that 'where monks traditionally take their alms from a food-carrying cart while there is chanting by lay persons during the monks' meal.'

Fig. XI: A Hall for Meals [16]

Beside of the hall for meals it has a pathway to one of the important place at Suan Mokkh. Here is Nalike Pond which is in rectangle area and one hundred meter in width and two hundred meters in length. The pond is covered by algae. In the center it has a small island around five square meters where is overspread by grass. The sole coconut tree about twenty to thirty meters grows up there. It has an explanation that 'there is a memorial of earnest Dhamma practice of grandparents in ancient time, in Thai old lullaby states that: Nalike coconut tree is lonely in the sea of beeswax. No rain, no thunder, stay in middle of sea of

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beeswax. It will be reached there by sage man only. The meaning is that Nibbana is present amidst samsara.'

Fig. XII: Nalike Pond [17]

(3) Analytical Study of Zen on Buddhadasa Bhikkhu's Ideal

As I mentioned above, it is able to analyze the concept of Zen which appears at Suan Mokkh as follows:

Spiritual Theater

In this case I mention to ten paintings of Emanuel Sherman, a Zen monk that Buddhadasa Bhikkhu duplicated and showed at the first floor of theater. These are called Koan for pondering to understand the real things that are hidden. The steps to ponder Koan are in the followings: first, trying to see what kind of that painting; second, considering carefully the real meaning of what does painting need to transmit; and third, attending the real meaning to our own minds, then that painting will shock us because it is teaching, blaming, and parodying us to change personality traits suddenly and it can get rid of defilements from our minds. [18] Sometimes people have to ponder Koan their whole life. The mind that cannot ponder Koan will despond and be tired. So, they have to communicate or ask a master to inspire themselves to ponder it. This method is called Mondo in Zen. When they penetrate Koan wisdom will occur brightly. Also, this theater is related to the Dhamma teaching heritage No. 7 and 9 of Buddhadasa Bhikkhu that he builds as essential materials to entertain the spirit of human beings. [19]

(2) Curved Stone Court

This court looks like Zen garden which is one type of Japanese garden. This garden normally arranges at monastery. The components of this garden consist of sands, stones, and some trees. Especially, sands and stones represent the Buddha's teachings, i.e. sands mean the sea which is explained to Samsara or the cycle of birth and death and stones are explained as living beings which are in Samsara. In addition, this place is for demonstrating alms

giving like the Buddha's lifetime according to the Dhamma teaching heritage No. 21. [20] This activity the people give alms into monks' bowls respectively while the monks are sitting and chanting.

Natural Uposatha

It is located at the top of hill called Khao Buddh Thong. It is most important place of monastery. Also, it reflects the concept of Zen like Curved Stone Court, but it is more meaningful place than Curved Stone Court. It is very quiet and calm because it is for monk's functions, such as ordination ceremony, chanting Uposatha (considering all precepts). This place looks like Zen garden called Dry Mountain-water Garden which is divided into two types: 1) Evergreen Garden and 2) Dry Landscape Garden. [21] Natural Uposatha seems like the second one. Sands and stones not only represent the Samsara and living beings in Samsara but also simplicity and minimalism to decorate the garden. This garden mostly appears somewhere at Zen monasteries or at the backside of abbot's room. It is comfortable to meditate and consider the Dhamma throughout balcony to the garden. While meditating they are able to ponder reality of life which is duplicated from these arts and architectures. [22] So, this garden is an abstraction of natural scenery to consider the Dhamma but Buddhadasa Bhikkhu applied it to use in daily life through Uposatha activities (ordination ceremony, considering all precepts) of Theravada sect.

Dhamma Ships

These look like the construction of ships which is the Buddha's teaching hidden. Also, it formally has Dry Landscape Garden on the top. The garden has many stone turtles representing the living beings in Samsara. Furthermore, in Japanese belief turtles refer to longevity which is meant that our lives in Samsara is too long until we reach the noblest goal, i.e. Nibbana. The bell tower is for ringing to assemble and remind to do activities. The upper floor of this tower has Sanchi pagoda that is duplicated from India. The tail part has a pavilion for Dhamma talk which is like a Zen abbot's room for meditating or considering the Dhamma throughout the garden. Therefore, Zen garden on Dhamma ship represents the Samsara which carries living beings on it. At the head of ship it has pagoda which is a symbol of Nibbana. And at the tail part it is a pavilion representing the mundane world of living beings which they have to swim cross the sea of Samsara (Zen garden) to the land of supramundane world.

Avalokiteshavara Bodhisattva's Statue

It is concerned with Mahayana belief since Srivijaya Kingdom. The reasons that Buddhadasa Bhikkhu built the statue can be assumed into two aspects as the followings: 1) old kingdom: in this area Srivijaya Kingdom, especially in Chaiya, a seaport of kingdom has ever grown up in the

seventh to thirteenth centuries. And some periods of this kingdom believed in Mahayana. For this reason, Buddhadasa Bhikkhu might want disciples to study the growth of both kingdom and Mahayana in the ancient time. So, he decided to build the statue for reminding a new generation to study their own history as a center of Srivijaya Kingdom; 2) making a merit: Buddhadasa Bhikkhu might have the purpose to make a merit like Bodhisattva for helping people. So, he molded the statue for representing that purpose. Due to Determinations (Panidhana) of Buddhadasa Bhikkhu, there are three parts as followings: 1) it is to promote people to reach the heart of their own religion; 2) it is to withdraw human beings from materialism; 3) it is to understand clearly among religions. [23] These Determinations are in the Dhamma teaching heritage No. 2 to 5 of Buddhadasa Bhikkhu that he intends to do and everybody who needs to be Buddhadasa (Slave of the Buddha) should practice as the main roles for helping living beings. [24] Also these are concerned with Determinations of Mahayana which are divided into four parts in the followings: 1) I will help all loving beings to escape from sufferings; 2) I will get rid of defilements and help loving beings to get rid of; 3) I will study Dhamma and help loving beings to study; and 4) I will attain Buddhahood and help loving beings to attain. [25]

Concordance of the above Determinations (Panidhana) between Mahayana and Buddhadasa Bhikkhu is able to consider to Bodhisattvadhamma (Ideals of Bodhisattva) as following table:

No.	Mahayana's Determinations	Buddhadasa Bhikkhu's Determinations	Bodhisattvadhamma
1	I will teach and help all loving beings to escape from sufferings.	To making understand clearly among religions.	Mettā (Loving-kindness)
2	I will get rid of defilements and help loving beings to get rid of.	To promote people to reach the heart of their own religion.	Khanti (Tolerance)
3	I will study Dhamma and help loving beings to study.		Paññā (Wisdom)
4	I will attain Buddhahood and help loving beings to attain.	To withdraw human beings from materialism.	Suddhi (Purity)

Tab. I: Concordance of Determinations and Bodhisattvadhamma

In the table it is explained that first Mahayana's Determination is associated with making understand clearly among religions and Mettā. This leads to be a true friend or friendship, work together with loving-kindness, compassion, etc. with any religions or other friends. Second and third one

are associated with promoting people to reach the heart of their own religion and related with Khanti and Paññā. This leads to be patient people to do work until they get the wisdom to enlighten or attain Buddha nature which has in each person. In other religions they are able to reach the goal of their own religions. And the fourth is associated with withdrawing human beings from materialism and Suddhi (Purity). This leads to purify their minds, do not indulge in extreme way, especially in matters. Buddhadasa Bhikkhu thought about the Empty Mind which was meant to emptiness of attachment and did not attach about 'I' and 'Mine.'

Each Mahayana's Determination emphasizes on helping people which is important role of Mahayana sect. If it is thoroughly considered it is found that the four Mahayana's Determinations are able to compare with the Four Noble Truths in Theravada sect. [26] First, it is able to compare with Dukkha, means that comprehension (Pariññā) of the sufferings. Second, it is able to compare with Samudaya, means that eradication (Pahāna) of cravings which is the cause of sufferings. Third, it is able to compare with Magga, means that development or practice (Bhāvanā) for leading to cessation of sufferings. And forth, it is able to compare with Nirodha, means that realization (Sacchikiriyā) of cessation of sufferings.

Nalike Pond

It is the Dhamma teaching heritage No. 22 of Buddhadasa Bhikkhu [27] that he duplicates from Thai old lullaby and needs to commemorate people to maintain what ancestors taught in the ancient time. In Thai old lullaby it states that Nibbana is difficult to attain. People who have practiced enough can cross the sea of Samsara and reach the land of Nibbana. Coconut tree in the middle of a small island is like Nibbana which is within Samsara, but so far to reach this land. In Zen garden arrangement it is found that water and trees are component of garden. Buddhadasa Bhikkhu has hidden the Dhamma puzzles of Zen garden through building the pond and coconut tree which is related to Thai old lullaby. These are Koan which mixes between the Dhamma and local belief perfectly.

(4) Advantages of Studying Zen on Buddhadasa Bhikkhu's Ideal

As mentioned above, Buddhadasa Bhikkhu's Ideal is included into two aspects in the followings: 1) living with nature; 2) working with empty mind.

The former one is concerned with religious buildings at Suan Mokkh. All things reflect on Buddhadasa Bhikkhu's practice which emphasizes on simplicity and cultivate the wisdom. In Dhamma teaching heritage No. 11 it is given to disciples which states on the 'eating from cat bowl, bathing in a pond, sleeping in a pig stall, listening to mosquitos singing, etc.' these are to live simply without materialism and suitable to develop the mind through eating and living

seem a low class but performing a high quality. [28] This means that human beings should survive simply, do not attach themselves to materialism, and live in harmony with nature, for example sitting on the ground of Uposatha, listening to the Dhamma around curved stone court. These are for living near nature and focusing on essentials of activity to understand the real purpose. This is able to apply to daily life, i.e. the four essential survivals (the Four Paccayas) that should associate with the nature.

The latter is concerned with the teaching of Empty Mind. This teaching reflects the teaching of Zen about Original Mind. The concept of this mind is influenced by Alaya Viññāṇa of Yogācāra School and Suññatā of Madhyāmika School in Mahāyāna sect. Zen received these concepts to apply for its own teaching and mixed with teachings of Taoism and Confucianism in China. After that it became a concept of Original Mind of Zen until now. In japan Zen was applied to Shintoism and became an important concept to develop Japanese cultures, such as garden arrangement, samurai, and tea ceremony. These cultures appear concept of empty mind or non-attachment in the background. For example samurai has to concentrate the mind on his sword while he is fencing off. When his mind is empty, calm down, and non-attached the mind is more liberated and powerful to train the way of warrior effectively. As mentioned above, it is able to apply for daily life which Buddhadasa Bhikkhu has ever taught about doing work with empty mind, discerning the world as emptiness, and living with emptiness according to the Dhamma teaching heritage No. 79. [29] And when doing work as responsibility, that responsibility is the Dhamma, so people are able to practice the Dhamma every day. [30]

III. CONCLUSION

Buddhadasa Bhikkhu is a change-oriented person, intellectual, master of meditation, and social reformer. He pays an important role in Theravada Buddhism since now. So, Donald K. Swearer who studied and translated Buddhadasa Bhikkhu's works in English entitles his name as Nagarjuna of Theravada. His works truly reflect the Buddhist society, do not support superstition, and avoid passionate materialism. Nowadays Buddhadasa Bhikkhu has been honored as one of the world's eminent personalities by the UNESCO. He is one of the important Buddhist philosophers. His works reflect Zen school not only what he established at Suan Mokkh but also his teachings about the empty mind, especially teaching of working with empty mind. According to the Dhamma teaching heritage No. 27, it is quoted that 'the trick of Zen is about the old methods in Buddhism which mixes Samatha and Vipassana to work together. It is to have Samadhi and careful consideration to attain original mind, i.e. reach non-defilements suddenly, do not separate methods because of the results of attachment. This rule is that Jhana is not for unwise person (No Paññā)

and Paññā is not for non-contemplated person (No Jhana).' [31]

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Development of The Occupational Class and Community Welfare of Fishing Families Through Community Enterprise: A Case Study in Village 2, Ban Ao Nam, Krabi, Thailand

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ABSTRACT

This case study investigates how the occupational class of fishing families in Village 2, Ban Ao Nam, Krabi, Thailand might be developed through sustained community enterprise which, in turn, might promote their welfare. The description and analysis of occupational class development, community enterprise, and community welfare for the target sub-group is presented in light of the wider, global scale. The research uses the methodology of quantitative analysis of relevant literature and qualitative responses of participants in focus groups and interviews. Primary data gathering and analysis involved extensive literature searches; secondary data were derived from observation and interviews with the aid of closed and open-ended interview schedules, and during a focus group session. All findings are presented using basic statistics of means, frequency, and percentages. The content of data is analyzed and integrated through triangulation. In these processes, underpinnings of Albert Bandura's efficacy postulations and John Holland's vocational type theories are explored as they are considered applicable to occupational class development, community enterprise, and community welfare. The results of the study highlight the degree of influence that community enterprise could exert on the occupational class development of the target community within its geographical parameters, and the consequential welfare that this community gain. These results stress the positive impact that a unification of community enterprise action like proper management, policy, leadership, community engagement, networking, sustainability, learning, and adaptation would have on the occupational class development and welfare of the target sub-group. Given the general community perception of the occupation of fishing by families as low-ranking, and the study's finding that overall support for exploration of the potential for class development of this sub-group was inadequate, the study's primary recommendation is for the Thai government and private initiative to propagate the expansion of community enterprise for the class development and welfare of this occupation while supporting the target sub-group and the broader community in their own enterprise endeavors.

Keywords:Occupational class development, community enterprise, community welfare, fishing families.

OCCUPATIONS IN THAILAND

Thailand is generally regarded as a developing country. This is largely as a result of the many strides it is making in economic, social, political, education, industrial, and commercial fields. Its variety of resources continues to contribute to that development. Prominent among those resources are those that are found within the Thai nation's human capital which drives all fields of activity (Autor, 2015).

People have a wide choice of occupations, and this choice is influenced by personal, environmental, economic, religious, or social conditions factors. Likewise,

Thai people have a choice as to what suits them best and what options they have; many take occupational pathways through force of need, tradition, or religious belief. Today, and in response to expressed needs and the desires of the nation – including many migrants - Thailand offers occupations in all the most popular and globally recognized occupations. These cover the fields of agriculture, the Arts, business, commerce, construction, education, entertainment, human services, industry, law, management, manufacturing, medicine, science, technology, travel, aquaculture, and religion (National Statistics Office, Thailand, 2018). Within these fields, fishing is ranked as sub-major in group 92, a relatively

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high ranking compared to many others (Connelly et al, 2016; ILO, 2012).

Traditionally, Thailand has had worldwide recognition as a strong fishing nation. Whether as organized fishing, fish trading, fish farming, local fishing, or fish product manufacturing, the occupation of fishing has developed over time to one that, despite policy and management difficulties, has not encountered a reduction in popularity and attraction. The depletion of fishery resources, overfishing, excessive fishing effort, conflicts among the fishers and violation of regulations and illegal fishing appears to have not stopped its popularity and attraction (NFAT, 2012).

Thai fishing is maintaining its status as worthwhile human endeavor, and its classification as a commerce-driven occupation remains relatively high. Thailand is, for example, a significant player among the 38 million commercial fish farmers worldwide, yet the need for reform, modernization, better worker justice and fairness, improved working conditions, improved management, and better State concern for its maintenance and development is shown to be intense. These difficulties are also prominent among traditional fishing people though they too are shown to have difficulties in adapting to changing times in the form of modernization and hogging of the market by large fishing conglomerates (ILO, 2015).

The participation of women – mostly the wives of fishers – is a phenomenon that is found to be a positive factor in the perpetuation of traditional fishing in the country (Ott-Holland et al., 2013). The research has found no official census on the number of women actively engaged in Thai fishing. In September 2019, however, the number of unemployed people stood at 385,000. Of this total, an estimated 34% are recorded as female (FAO, 2019; Funge-Smith, 2018). This seems to suggest that the potential for more participation of women in fishing as a subsistence stopgap for economic strain on family incomes is strong. The creation of a more entrenched occupation of family-fishing is also possible.

OCCUPATIONAL CLASS IN THAILAND

The classing of an occupation is based on criteria which are consensually regarded as the best way to recognize or assign occupational worth, general standing, job prestige, social usefulness, socio-economic clout, desirability, or value to, it. This judgement of the class of an occupation is done independent of the individual that occupies a job or position. These considerations would reflect the level of education, skills, value system, income-generating potential, social recognition, history, or longevity of an occupation (Ganzeboom, 2010).

In Thailand, occupations are judged no differently. Occupations have their class assigned with special attention to contextual factors, Thai traditions, global standards, opportunities for development of class, and to what degree the practice expectations of occupations are conducive for human need satisfaction and gratification (FAO, 2018; Connelly et al, 2016; Bukodi et al. 2011).

Consistent with the indicators used for global occupations by the International Labor Organization (ILO) (ILO, 2015; ILO, 2102), Thai occupations are ranked realistically and as currently done for all other occupations that employ the ILO ranking. For example, architecture is ranked as of top class, whereas shop-keeping is classed as of the lowest class. On the one hand, commercial fishing's high ranking in its broadest and largescale form is due to its context of history of production, knowledge, skills, economic viability, diversification capabilities, popularity, political usability, social recognition, and potential for future growth (Platt, 2011).

On the other hand, traditional or subsistence fishing as an occupation does not have the same grading due to its smaller-scale operation. It has far less production outcomes, and limits in its diversification capabilities, economic bases, marketing scope, access to resources, occupiers, and personal growth outcomes for occupiers. It cannot, therefore, compete with its commercial counterpart and hence, as sub-group of the larger fishing occupation, has lower class recognition (FAO, 2019(ii); Biswa, 2017). This does not mean, however, that traditional, small scale fishing, whether for subsistence or commercial reasons, lacks the potential for development of its class as a legitimate sub-group of the fishing sector in Thailand. The researcher subscribes to Suebsutho et al (2011) view that the development of its class - through specific, concrete ways - can only improve the strength and competitiveness of this community sub-group.

DEVELOPMENT OF OCCUPATION CLASSIN THAILAND

The class of an occupation is not a static, immutable phenomenon in any global context (MacMillan, 2018). In the same way that an occupation, per se, can develop (or degrade) its bases of education, skills, value system, income-generating potential, social recognition, and productive outcomes, the development (or degradation) of all or any of the latter can contribute to the development (or devaluation) of its class. Literature supports the latter notion that intra-occupational class development can be brought on by either personal influences or environmental

factors (Bandura, 2011; Nauta, 2010).

The above can, alternatively, also be in positive forms, as the consequences of their effect on the development of the class of an occupation. For example, consequences could be better education, improved skills, renewed value system, increased economic benefits, wider social recognition, and greater productive outcomes. This is found to be the case of all known occupations in Thailand.

Research has produced evidence that, as a matter of course, most Thai occupations undergo internal, ongoing review and evaluation in efforts to develop their class ranking. Motivations are found to be firmly embedded in the Thai endeavor to attract local and global engagement in occupations of people's own choice and capabilities. In this way, it is proposed, the Thai economy and global image would be enhanced (ILO, 2015; NESDB, 2011).

Research also finds that, rather than support intra-occupational efforts to develop their occupations, Thai people attempt to pursue different careers. Reasons are either subjective, personal, discerning notions of multi-efficacy), objective (about the nature of the work), or critical (analysis of the work environment) (Hooley et al., 2013; Bandura, 2011). When taken as another form of class development, the latter practice would suggest that career development could potentially offer Thai people wider horizons as productive, human capital for Thailand.

DEVELOPMENT OF THE OCCUPATIONAL CLASS OF FISHING IN THAILAND

This The generally high, official ranking of Thai commercial fishing, including fish farming, is little cause for its practitioners and its stakeholders to engage in an organized process to have that ranking raised in any measurable way. Rather, there is an occupational mentality of acceptance and complacency among its adherents about the occupation's ranking. This does not, however, exclude internal efforts to keep abreast of trends in improved occupational knowledge, skills, resourcing, management, and marketing. Other, less formalized efforts include developing ties with communities and stakeholders who offer informal inputs to the sustained maintenance of the commercially valuable sub-group of the fishing occupation in Thailand (FAO, 2019 (i); Sachs, 2016; Lambert and Bihagen, 2014).

Scientific evidence of moves by current occupiers of the commercial fishing sub-group to seek careers other than fishing, indicate that their motivations were largely the same as those described in the case of the occupiers of general occupations (ILO, 2015; NFAT, 2102). They are shown to be have had positive self-perception of their capabilities, were losing interest or attraction to their current occupations, and their work situations had much to be desired. This form of occupational class development could potentially offer the fishing sub-community opportunities for greater gratification as productive units within the Thai nation (Inkson et al, 2014).

The distinctly lower grading of the work of local, small-scale, fisher families is strong motivation for them to seek ways - internally or from outside - to develop their share of the class of the occupation. Barriers to the prospects of class development are found by research to be steady depletion of fishery resources, excessive fishing effort, the negative environmental effects of overfishing on the oceans and other waterways, conflicts among fishers themselves, the continuing violation of regulations, poor adapting to modernization of techniques, hogging of the market by large fishing conglomerates and the steady lessening of attraction of the occupation as a form of livelihood (Legal and General Protection Company, 2018; Bene et al, 2015).

Still, ordinary, standard fishing practice are upgraded in terms of its 'class' level by confronting the above negative elements and trends alongside supplementary, intra-sector, higher level actions of processing, marketing, and diversification of products. These include having better and more effective leadership; better relationships with a manager; improvement of work/life balance; recognition of fishers' contributions to the occupation as a whole; better compensation and benefits where applicable; better alignment with personal and organizational values; better fitting of personal strengths and capabilities of organizations concerned; networking with other occupations when relevant and reciprocally beneficial; financial stability in the working arrangements when applicable; and, changing practice sites to ones that are more visible to others and more productive (Costello et al., 2012; Chan, 2012; Chimplee, 2012) .

The success of this development depends on the degree to which resource provision, by way of social or community enterprise, can demonstrate the providers' interest in and concern for the occupational class development of the community of fisher families (Department of Agricultural Extension, 2015). Such enterprise could, on a sustained, long term basis, provide resources commercially or voluntarily. It could include career advice and guidance. Its first port of call is the range of difficulties that fishers currently experience in asserting and developing the class of their occupation (Chan, 2102).

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COMMUNITY ENTERPRISE IN THAILAND AND ITS IMPACT ON:

(A) THE CLASS DEVELOPMENT AND COMMUNITY WELFARE OF GENERAL OCCUPATIONS

With their reliance on the commercial benefits of community enterprise initiatives, Thai providers of this service offer resources and their expertise on long-term bases. Their enterprise is in the form of tangible tools with which the various occupations are plied, capital input, expertise, skills training, the rebranding of occupations, modernization schemes, management upgrades, inter-occupational networking ((MacMillan, 2018). Concurrently, membership of community members on their boards of directors and assistance in the creation of new jobs are common among community enterprisers.

This much-needed service in Thailand is allowed under the auspices of the Community Enterprise Act of 2005, legislation that is proving to be an asset to all divisions of the labor market. Indications are that the long-term benefits for the Thai nation would be occupational class development as a direct result of effective community enterprise input to the working sector (Department of Agricultural Extension, (2015). This development is reflected in the increased recognition of semi-skilled occupations and the consequent raising of their levels of personal gratification, commercial benefits, and improved social recognition. The official class ranking of those occupations which gain in these ways are thus boosted. Occupations like home industries, street vending, small businesses, and privately-run education centers are particularly advantaged. The chances of these gains on a wider, sustained scale can only be conceived should the provision of community enterprise maintain and indeed intensify its presence in Thailand (Sachs, 2016).

The overall, far-reaching gain from community enterprise is the reduction of poverty, the increase in self-reliance within communities (Sriwichailamphan, 2013), economic stability, the spreading of business-mindedness, entrepreneurship, a balancing of culture and the demands of modern living, the holistic engagement of various sectors in the spirit of better community cohesion, better management of the growth of the nation, and improved community welfare. These gains to the Thai labor market and society are widely acknowledged as evidence of the effectiveness of community enterprise as a change agent. It also has the dual function of both affecting community welfare and being the expression of community welfare.

There is, for example, general acknowledgement of it as part and parcel of the Thai movement to bring about structural change in the processes of class assignment to occupations in pursuit of better community welfare. The latter, usually taken to be a type of government support for the citizens of society, is consequently effective in helping occupations raise their class levels. As an expression or form of welfare, community enterprise has the inherent capacity to offer its goods and services for the development of the class of occupations quite simply to enhance the well-being of the those subjected to it (Corak, 2013).

All occupations that rely on, and receive, community enterprise input in any of its many forms, find that their occupiers have greater potential for improved welfare. Their heightened social security within a social safety net, their improved ability to better meet their basic human needs like food and shelter, their overall sense of minimum levels of well-being, and the positive effects that free- or subsidized goods, education, vocational training, and social services exact on their lives and occupations, all combine as ample means for raising levels of welfare. Given the rising prominence of community enterprise as a socio-economic force of some standing, the strong prospects of the raising of the welfare of affected Thai communities - as one it's off-shoots - cannot be ignored (Ganzeboom, 2010).

(B) THE CLASS DEVELOPMENT AND COMMUNITY WELFARE OF THE OCCUPATION OF FISHING

The commercial and farming sub-groups of the occupation of Thai fishing, given the wide acknowledgement of its rating as of high class, are as reliant on the commercial benefits of community enterprise initiatives as other occupations currently are. This sub-group benefits from long-term, community enterprise investment, tangible tools with which it plies its trade, capitalization, expertise, skills training, the steady rebranding of fishing, modernization of fishing strategies and schemes, business management upgrades, membership of fishers and associates on boards of directors, job creation in the fishing industry, and entrepreneurship. These inputs all contribute to heightening and developing the status, prestige, ranking, and class of fishing as they cast it in different light in the purview of those engaged in ranking processes (Chimplee, 2012).

Fishing in its broadest sense continues to draw similar fruits from the community enterprise inputs to those that the general family of occupations in Thailand experience. It is suggested that the development of the class of fishing as an occupation is well on its way; that it would ultimately reach the heights of regard and ranking that occupations such as architecture, science, and education

have already reached. Human reactions such as personal gratification, commercial benefits, and improved social recognition are contributing to this process of development. Much value is being attached to the provision of modern fishing strategies, techniques, tackle, marketing systems, recruitment and manpower schemes, community liaison and engagement, worker rights, and environmental awareness programs. The persistence of the depletion of fishery resources, overfishing, excessive fishing effort, conflicts among fishers, violation of regulations, and illegal fishing is not derailing community enterprises. These have instead motivated community enterprisers to do more (ILO, 2015).

Economic stability, fishing business-mindedness, entrepreneurship, a balancing of the fishing culture and the demands of modern living, the inter-occupational links between the fishing fraternity and others, better management of the growth of the occupation, and improved community welfare are primary among its gains (FAO, 2019). Community enterprise, as change agent for fishing, is therefore effective for the sustained upgrading of the class of fishing as occupation. Its capacity to generate gain are equally applicable to fishing as it is for other occupations in the country. Its capacity, for instance, to positively influence, or to serve as the reason for, community welfare, are the same (Hout et al, 2016).

Its presence in fishing on the broad also has a distinct function of change agent for better community welfare in this specialist occupation. These include conditions of social security, better needs satisfaction, trouble free-access to subsidized goods, provision of occupation-specific equipment, more capitalization of fishing ventures, and overall conditions of well-being among the fishing community. These spinoffs and gains from community enterprise are not, however, prevalent among fishers engaged in the occupation on smaller, self-help, community-based scales despite the support of the Small and Micro Community Enterprises Promotion Act of 2005 (Department of Agricultural Extension, 2015; Bene, 2015).

The local, family-based, sub-group of the fishing occupation have inadequate access to, or approaches by, community enterprise ventures. The literature does not contain meaningful evidence of attempts at redressing this void in the ambitions or work of community enterprises. Local, family fishers with no ambitious economic ideals except modest targets for fish catches for daily subsistence, are not advantaged by the continuing inputs of community enterprise as do commercial outlets of fishing. This scenario reduces the chance of occupational development and its consequence of community welfare

for local, family fishers, and small-scale fish farmers (FAO, 2015).

The known, sporadic inserts of community enterprise goods and services have no sustainability or enduring, positive effect on either the development of the class of this occupational sub-group, nor on their welfare as community. Without outside help, they continue to have little social security, are caught in an unreliable social safety net, have inadequate resources to meet basic human needs, and generally less sense of wellbeing than others in more highly regarded occupations (Hall and Patrinos, 2012).

It is not clear in available literature or research records whether community enterprise and its array of free or subsidized goods, education, vocational training, and social services of any other relevant kind would be able to find firm ground in the sphere of local, family-based fishing, and deliver its influence on occupation development processes and community welfare, as it does for other occupations. The extent of this gap in service across Thailand is not known, although the aim of this research is to establish to what degree it is prevalent in a selected fishing community.

THE CASE STUDY OF FISHING FAMILIES COMMUNITY ENTERPRISE

(A) GENERAL DESCRIPTIVE DETAIL OF KRABI PROVINCE AND ITS DISTRICT OF AOLUEKone of the southern provinces of Thailand and situated on the shore of the Andaman Sea, Krabi Province comprises 375 villages populated by 56,2000 residents capable of producing a gross provincial product of Bhts in 2018. AoLuek is a district of nine sub-districts within this province, sub-divided into 52 administrative villages. At the last count in 2018, 96,000 households populated by 9,250 family members formed the core of the district. Agriculture, tourism, and - to a lesser extent - fisheries, form the backbone of Krabi's economy (World Bank Group, 2019; UNO, 2019; ILO, 2015).

The small town of AoLuk in this Krabi village area has been cut in two by the Krabi-Phang Nga highway. It has a long tradition in local fishing by local community people, who are directly supported by fresh seafood including grape seaweed and spiny lobsters gathered and prepared by themselves. This community have authentic local lifestyles (National Statistics Office – Thailand, 2018).

(B) OCCUPATIONAL CLASS DEVELOPMENT, COMMUNITY ENTERPRISE, AND COMMUNITY WELFARE IN KRABI AND ITS DISTRICT OF AOLUEK Without any credible, scientific

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evidence to confirm their presence or incidence in Krabi Province and its district of AoLuek, the interrelationship between their range of occupations, their class ranking, the development of the latter, the effect of community enterprise, as well as the extent to which community welfare is enhanced as the result, cannot be examined or analyzed in any meaningful way. It was anticipated at the start of the case study process that such examination and analysis might be partially possible during the process of the case study.

(C) THE TARGET RESEARCH SITE OF BAN AO NAM, VILLAGE 2 Village 2 of Ban Ao Nam is one of 121 coastal fishing villages in Krabi. It is in the Laem Sak sub-district of the above town of AoLuk. In 2018, 5,100 fisheries were active in the area, populated by 2,010 employees (National Statistics Office – Thailand, 2018).

The research has found no official or anecdotal accounts of the number of active fishing families in the research target village. Local, oral accounts by those familiar with Village 2, confirm that its community is predominantly engaged in fishing on small, non-commercialized bases at times involving migrant fisher folk.

The present case study has also not succeeded in locating any credibly official or even anecdotal information or data in recent documents and reports of the variety of other occupations, their class ranking, and class development in the confines of Village 2. This makes it beyond the scope of the present research to offer any assessment or evaluation of written accounts and current perceptions by locals or interested others of the class of fishing as an occupation and its development. The aim and objectives of this small-scale case study were to partially fill this lacuna, as an initial step towards more in-depth, scientifically vouched methodology.

For the purposes of this case study, literature researched offer little evidence of the presence and effects of community enterprise on the fishing practices of local people in Village 2. Tourism records show that tourism leads the way in the commercialization of the village as an attraction for potential tourists (FAO, 2019 (i); FAO, 2018). Through concerted community enterprising of capital, management expertise transfers, and upgraded advertising techniques, AoLuk's community-run, long-tail boat trips and traditional culinary treats are two recipients which benefit most. It appears that the fishing activity of Village 2 receives comparatively less attention in these respects.

Other inputs by local, non-profit organizations like the North Andaman Network (NAN) and its partners provide capacity training in marine operation and safety in order to upgrade the Laem Sak Tourism Community Enterprises' tours, subsidize the purchase of new equipment for marine tours, offer active hiking, and bike and kayak journeys (FAO, 2018). Island hopping tours, 3-day sea kayaking with locals, and hands on activities including batik making, are other community pastimes which receive informal, occasional help from community enterprisers. These demonstrations of community enterprise have yet to be directed at the occupation of fishing, an occupation which the locals find hard to relinquish.

The injection of better conditions of welfare for the larger community of Village 2 as the result of the type of community enterprise it receives would be a logical outcome. It could be expected of the fishing sub-sector of Village 2 to have the same dividends should it too be given similar attention. The present study has not found any records of conditions that could have accounted for the sort of advantages that each of the recipient occupations mentioned earlier have been able to experience.

RESEARCH METHODOLOGY, PRPCESS AND PROCEDURE

The above quantitative analysis of literature and documentary - as a portrayal of occupational class development, community enterprise, and community welfare as they relate to Village 2 in the context of Thailand - served as a meaningful basis on which the follow-up, non-representative empirical part of the case study was conducted. The overall purpose of the qualitative study was to establish whether indeed the views and experiences of those directly and indirectly affected by the three study areas of focus were similar or in any way different to those quantitative findings (Creswell, 2014; Baxter and Jack, 2013; Denzin, 2012; Terrell, 2012; Yin, 2011; Creswell, 2010).

The **AIM** of the small-scale case study was thus to empirically investigate the nature and extent of the interrelationship between occupational class development, community enterprise, and community welfare in Village 2 on a small scale. In specific terms, the main **RESEARCH PROBLEMS** were:

1. Occupation class development of fishing in Village 2 is not common;

2. Community enterprise plays a minor role in the development of the class of fishing in Village 2;

3. Community welfare is not evident as a result of the development of the class of fishing as an occupation in Village 2.

In pursuit of the research **AIM**, **THE RESEARCH OBJECTIVES** were to:

1. Establish to what extent occupational class development takes place in Village 2;

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2. Investigate the scope of the role that community enterprise plays in the development of the class of fishing as an occupation in Village 2;

3. Ascertain how and to what extent the community welfare of fishers of Village 2 is advanced with the aid of community enterprise during the developmental processes of their occupational class.

As they were interlaced in the literature research phase, Albert Bandura's efficacy postulations (Bandura, 2011), John Holland's vocational type theories (Nauta, 2010), John Sach's sustainable development ideas (Sachs, 2015), and to a lesser extent, Bordieu's theory of class distinction (Atkinson, 2018; Riley, 2017) are explored and threaded throughout the developing argument and analysis of findings in the rest of this report.

PROCESS AND PROCEDURE

Probability, purposive samples for the interviews and focus group session were achieved through simple random means while attempting to reduce sample error (Creswell, 2014). These allowed qualitative research methodology to be launched over a period of 3 weeks in March 2019 (Agerfalk, 2013). The process and procedure included planned steps which were considered integral to it (Baxter and Jack, 2010). These were:

(a)Interviews (20 minutes each):

• Direct, clustered distribution of notices of the research to the wider village community at private homes, shops, commercial centers, mosques, and schools. This meant that a large percentage of the population were given the opportunity of inclusion;

• As an appendix to the above step, issue of invitations to the potential participants to take part;

• Notices of interviews times, venue, and participation expectations;

• Conduct of interviews with the aid of questionnaires;

• Mailing of letters of appreciation to those who attended.

(b)FOCUS GROUP SESSION(120 minutes):

• Arrangement of focus group session vis-à-vis individual interviews as this provide rich, considered,combined thoughts, as well as would fast track the process without the loss of quality findings;

• Conduct of a focus group session at a mutually agreed center and at the convenience of participants.

PARTICIPANTS

With an acceptable margin of error, and confidence level of 95% (Baxter and Jack, 2010), the total number of 23 participants for both the interviews and the focus group discussion had met the selection criteria of village status, adult age, familiarity with, and concerns about, local fishing practices. Each grouping was characterized as follows:

(A) INTERVIEWEES

Table 1 below shows the range of five categories of occupations represented by those villagers who volunteered and qualified to take part, as well as their relevant socio-demographic detail. It was noted that: 69.2% (n=9) of the interview group of 13 individuals were people directly associated with fishing in the research site; the rest (30.8% - n=4) had occupations closely connected to work with people; the gender division was similar to that for the group composition; 84.6% (n=11) had Thai nationality; ethnic identity was evenly spread over three of the five groups included in the questionnaire; 69.2% (n=9) were married; the count was evenly spread over the levels of education and training although fisher committee members were better educated and trained; the latter group were also more literate in all forms of communication.

(B) FOCUS GROUP PARTICIPANTS

As a result of its more purposive aim, the focus group drew fisher people who brought their family along to take part. Table 2 below shows: ages for the group of 10ranged between 15 and 50; 70% were male; 80% were Thai; 60% were of Burman ethnicity; 80% were married; 40% had no education; there was an even spread of numbers who could communicate in, or read, the Thai language and other languages.

Table 1 Socio-demographic profile of interviewees (N=13)

VARIABLE	Fisher (n=3)		Member of Fisher Committee (n=6)		Community leader (n=2)		Community worker (n=1)	Municipal officer (n=1)
Age (yrs.):	M	F	M	F	M	F	M	M
15-19			1	1				
20-24	1	1	1					
25-29								
30-34			1				1	
35-39					1	1		
40-44	1			1				
45-50								
+50			1					1

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VARIABLE	Fisher (n=3)		Member of Fisher Committee (n=6)		Community leader (n=2)		Community worker (n=1)		Municipal officer (n=1)	
Gender:										
Male	2		4		1		1		1	
female		1		2		1				
Nationality:										
Thai	1	1	3	2	1	1	1		1	
Cambodian										
Malay			1							
Myanmar	1									
Other:										
Ethnicity:										
Burman	2		2	1	1	1				
Mon		1	1	1			1		1	
Karen			1							
Shan										
Other:										
Marital status:										
Single	1		1			1				
Married	1	1	3	2	1		1			
Divorced										
Widowed									1	
Education and training:										
None	1		3	1						
Primary	1	1	1							
Secondary				2	1	1			1	
College							1			
University										
Technical									1	
Literacy:										
Speak Thai	2		4	2	1	1	1		1	
Read Thai	2		4	2	1	1	1		1	
Write Thai	1		4	2	1	1	1		1	
Speak other		1	1	2	1		1			
Read other		1	2	1	1		1			
Write other		1	1	1	1		1			

Table 2 Socio-demographic profile of focus group attendees (N=10)

VARIABLE	Fisher (n=7)		Fisher brother (office administrator) (n=1)	Fisher daughter (day-caregiver) (n=1)	Fisher father (n=1)
Age (yrs.):	M	F			
10-14					

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VARIABLE	Fisher (n=7)		Fisher brother (office administrator) (n=1)	Fisher daughter (day-caregiver) (n=1)	Fisher father (n=1)
15-19					
20-24	1		1		
25-29					
30-34	3	2			
35-39		1		1	
40-44					
45-50					
+50					1
Gender:					
Male	4		1	1	1
Female		3			
Nationality:					
Thai	3	2	1	1	1
Cambodian	1	1			
Malay					
Myanmar					
Other:					
Ethnicity:					
Burman	1	2	1	1	
Mon	2				1
Karen					
Shan		1			
Other:					
Marital status:					
Single	1				
Married	3	3	1	1	
Divorced					
Widowed					1
Education and training:					
None	1	1			
Primary	2	3	1		1
Secondary	1			1	
College					
University					
Technical					
Literacy:					
Speak Thai	4	1	1	1	1
Read Thai	3		1	1	1
Write Thai	3		1	1	1
Speak other	1	1	1		1
Read other					1
Write other					1

DATA COLLECTION AND PROCESSING

Started from the literature research and quantitative stage, the collection, sifting, marshalling, ranking, and analysis of data continued into the empirical phase of the case study. Extra care was taken in maintaining relevance and utility of data in so far as they would either embolden or cast doubt on the developing argument of the research (Packer, 2017; Denzin, 2012).

RESEARCH RESULTS AND ANALYSIS

Data Analysis Procedure: Quantitative data were analyses using basic statistical techniques to reflect the mean, frequencies and percentages in them (Treiman, 2009). Data extracted from literature, documents, interviews, and the focus group session were coded and subjected to content analysis. The results from the mixed method approach were integrated using triangulation (Denzin, 2012).

(A) ANALYSIS OF SOCIO-DEMOGRAPHIC DATA ON INTERVIEWEES: The 69.2% (see Table 1) of the group who were directly associated with fishing in the research site, whether purposefully selected or participated through chance, shows that the topic of the research was of concern, that the participants were prepared to express their perceptions or opinions about it, and suggestion how to address associated problems. Others, though outside of fishing, were in all likelihood taking part for the same reasons; the weighting of participation by Thais signify strong local involvement in the issues concerned; the lack of any excess of participation by one ethnic group over others would give any analysis of data a balanced, equitable basis free of any bias or intellectual slant; the majority of married participants shows maturity, experience in co-living, and a concern as to how fishing might affect their responsibilities to support themselves and dependents; the differences in education while sharing much in forms of communication is reflective of expected capacity to give thought and conceptual regard to the matter under investigation (Alonso-Poblacion and Siar, 2018; Treiman, 2009; Zijdeman, 2009).

(B) ANALYSIS OF SOCIO-DEMOGRAPHIC DATA ON FOCUS GROUP PARTICIPANTS: The support for the main participants, alignment to the issue of fishing and the focus of the case study, and the willingness to contribute as individuals themselves, says much in favor of the family relations of attending fishers. Other data of equal significance in Table 2 are: fishing in the locality of Village 2 was not determined by or confined to one age or gender group; the heavy count for male participation confirms that fishing remains a male dominated occupation; the Burman ethnic count could indicate the chances of undue influence of perception of one group over others and therefore skewing of the analysis; the high count in illiteracy – a condition generally associated with low class, semi-skilled occupations – could be taken as minor confirmation of the latter; the even count in proficiency in all of the communication forms in respect of the local and other languages could be indicative of long standing inter-group relationships and hence assimilation across communication barriers (Creswell, 2014).

Table 3 Occupational detail and occupational self-perception of interviewees (N=13)

VARIABLE	Fisher (n=3)		Member of Fisher Committee (n=6)		Community leader (n=2)		Community worker (n=1)	Municipal officer (n=1)
Period of involvement in occupation (yrs.):	M	F	M	F	M	F		
5-7			2	1	1	1		
8-10			1				1	
11-13				1				
14-16								
17-19								
20-22								1
23-25	2	1						
Degree of satisfaction:								
High								
Somewhat	1						1	1
Little	1	1	4	2	1			
None						1		

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VARIABLE	Fisher (n=3)		Member of Fisher Committee (n=6)		Community leader (n=2)		Community worker (n=1)	Municipal officer (n=1)
View of <u>class</u> of own occupation:								
High								1
Average					1		1	
Low	2	1	4	2				
Very low						1		
Ways of developing <u>class</u> of own occupation:								
<u>From within</u> -			4	2	1	1	1	1
Improve public image	2	1	4	1			1	1
Modernize operations			4	1	1	1	1	1
Manage with care	1	1	1		1	1	1	1
Upgrade leadership	1	1	4	2	1	1	1	1
Tap outside resources			3		1	1	1	1
Network with others			1					1
Rebrand occupation			2	2	1	1	1	1
Commit to innovation					1	1	1	1
Increase creativity	2	1	4	2				1
Energize marketing	2	1	4	2				1
Engage with workers	2	1	4	2	1	1	1	1
Engage community			1	1	1	1	1	1
Listen to stakeholders					1	1	1	
<u>Externally</u>	1	1	3	1				
Pursue another path								
Chances of improved <u>community welfare</u> as the result of above:								
Very good	2	1	4	2				1
Good					1	1	1	
Fair								

Table 4 Occupation and occupational self-perception of focus group attendees (N=10)

VARIABLE	Fisher (n=7)		Fisher brother: (office administrator) (n=1)	Fisher daughter (day-caregiver) (n=1)	Fisher father (trawler-fisher) (n=1)
Period of involvement in occupation (yrs.):	M	F			
Minus 1 - 1	1	1			
2-4	1	1			

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VARIABLE	Fisher (n=7)		Fisher brother: (office administrator) (n=1)	Fisher daughter (day-caregiver) (n=1)	Fisher father (trawler-fisher) (n=1)
5-7				1	
8-10			1		
11-13	1				
14-16	2				
17-19					
20-22					1
23-25					
+25					
Degree of satisfaction:					
Very				1	
Somewhat	1	1	1		
Little	4	1			1
None					
View of <u>class</u> of own occupation:					
Very high					
High					
Average			1	1	1
Low	5	2			
Very low					
Ways of developing <u>class</u> of own occupation: <u>From within</u> -					
Improve public image	3	2	1	1	1
Modernize operations	1	1	1		1
Improve conditions	1	1	1	1	1
Get Government aid	4	2			1
Tap outside resources	2	1	1	1	1
Commit to innovation	5	2			1
Listen to fishers	4	2	1	1	1
Listen to fisher wives	4	2			
<u>Externally</u>					
Pursue another career	5	2	1		
Chances of improved <u>community welfare</u> as the result of above:					
Very good	3	1	1	1	1
Good					
Fair					

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(C) RESULTS AND ANALYSIS OF DATA GAINED THROUGH INTERVIEWS: In sum, inferences of most import could be made from the responses of participants (Packer, 2017):

(i) The wide range of their ages would give the findings more credibility and usability for deeper analysis at a later stage; the advanced age of the municipal worker added maturity to his contribution and showed his symbolic power over the others (Bandura, 2011);

(ii) The finding that there are no scores for high satisfaction about their occupation; that fishers were mostly 'little' and the rest mostly 'somewhat' satisfied, indicated possible mis-location in terms of type of work, consistent with Hollands proposition (Nauta, 2010);

(iii) The generally average grading of the class of their occupations, with fishers having a low regard for theirs, and none very high, signify that all participants had occupational esteem difficulties and were likely influenced by how society viewed them (Arnold et al., 2016; Bandura, 2011);

(iv) Responses to the suggested variety of ways of developing the class of their own occupations from within the occupations generally showed insight, concern about (or lack of) class, a need for (or lack of) its development, and how the latter could be done through ways that has a community enterprise 'flavor' to them. The differences in actual scores for each of the 'ways' for each occupation in the sample population would attest to the degree that these underlying motivations apply (Corak, 2013):

- 'Improve public image': no fishers agreed; all others did;

- 'Modernize operations': all fishers, 83.3% of fisher committee, community leader, community worker, and municipal worker agreed; community leaders abstained;

- 'Manage with care': all agreed whereas none of the fishers did;

- 'Upgrade leadership': all agreed, with 66.7% of fishers, 16.7% of fisher committee members, the community leader, community worker and municipal worker saying so;

- 'Tap outside resources': all supported this suggestion with scores of 66.7% (fishers) and all of the others (92.3% of the sample population);

- 'Network with others': 50% of the fisher committee and all of the rest of the sample population agreed; fishers, however, did not;

- 'Rebrand occupation': agreement for this was expressed by 16.7% of the fisher committee, but none of the community leader, community worker, or 3 fishers' group;

- 'Commit to innovation': only 6.7% of the fisher committee members, and the rest agreed to this; the 3 fishers did not;

- 'Increase creativity': none of the fishers or fisher committee members supported this way; the rest of the group did;

- 'Energize marketing': all of the fishers, their committee, and the municipal worker did; the community leader and leader did not;

- 'Engage with workers': all of fishers, their committee, and the municipal worker did; the community leader and leader did not;

- 'Engage community': this way was unanimously agreed to by the sample population;

- 'Listen to stakeholders': no fishers or fisher committee members took to this way; of the rest, 33.3% of the fisher committee members did, and the rest took to it too.

(v) The 66.6% of fishers and fisher committee members who declared that they would pursue another career as an external way of developing the class of their own occupation of fisher said it would be on condition that they received no help in increasing production or not getting any other forms of community enterprise help. Understandably, the municipal worker's lack of motivation for career change was due to age, skills, efficacy of his skills, satisfaction, and familiarity with his work. The community leaders' and community worker's need for better job satisfaction and pay as the reasons for their attraction to career change did not allude to any disillusionment about the class of community work (DeVol et al., 2013).

(vi) It was clear that all participants had in mind the good effect that these suggested actions for class development might have on the potential for improved community welfare as the result, as well as how those actions might also be regarded as 'welfare'. This is reflected in the unanimous suggestion by fishers, the fishing committee, and municipal worker that the chances of the latter was 'very good' compared to the 'good' of community leaders and community worker (Atkinson, 2018; Nauta, 2010).

(D) RESULTS AND ANALYSIS OF DATA GAINED THROUGH FOCUS GROUP SESSION. The focus group discussion, oral exchanges of thoughts, perceptions, concepts, and beliefs, as well as the social togetherness of the 10 participants allowed for impromptu, spontaneous responses to the discussion items put to the

group. As was the case with the individual interviews, inferences of significant import could be made from the responses of participants (Packer, 2017; Creswell, 2014). In sum, they were:

(i) The wide range of involvement time in their occupations gives the findings more credibility and scope for deeper analysis at a later stage; the long period of involvement that the trawler fisher had had in fishing added a degree of maturity to his contribution, while his position also lent him symbolic power, vicarious persuasiveness, and good occupational personality (Bandura, 2011; Nauta, 2010);

(ii) The finding that only the day-caregiver was 'very' satisfied with her occupation reflects poorly on the nature, work conditions, personal career choice, and ambitions of the other respondents. The high count of 71.4% of fishers and the trawler fisher who had little satisfaction could also have been reflective of these causes. The latter appeared less applicable in the case of the rest (28.6%) who were 'somewhat' satisfied. The nil score for 'very low' could have meant respondents were not altogether wrongly placed in their occupations, or displeased about their production (Nauta, 2010). The high satisfaction expressed by the day-caregiver was strong evidence of occupational performance gratification and self-efficacy (Bandura, 2011);

(iii) The nil count for fishing as having 'very high' or 'high' class is representative of the wider, societal perception; the office administrator's view that it is of average class is likely representative of a minority view ((Bhattacharya, 2011);

(iv) Discussion of the suggested variety of ways of developing the class of their own occupations from within occupations generally showed concern (or lack of) about class, insight into the dynamics of their occupations, their views about whether or not they needed development, and if so, how the latter could be done through ways that community enterprise might offer (Nauta, 2010). As was suggested in the case of the individual interviews, the differences in actual scores for each of the 'ways' for each occupation in the sample population would attest to the degree that these underlying motivations apply:

- 'Improve public image':71.4% of fishers agreed; all 3 of the others did;
- 'Modernize operations': 28% of fishers supported this action, as did the office administrator and the trawler fisher; the day-caregiver did not;
- 'Improve working conditions': 28% of fishers supported this suggestion whereas all 3 of the other group members did;

- The group's own suggestion to obtain Government aid was supported by the trawler fisher whereas 14.3% of the rest did not;
- 'Tap outside resources': All agreed to this, except 56,1% of the fishers;
- 'Commit to innovation': All the fishers and the trawler fisher wanted innovation; the day-caregiver and the office administrator did not;
- 'Listen to fishers': 85.7% of fishers; all 3 of the others;
- Put forward by a fisher, to 'Listen to fisher wives' was agreed to by 85.7% of the fishers, and by none of other 3 group members.

(v) The 100% score for fishers and office administrator declaring that they would pursue another career as an external way of developing the class of their own occupation of fishing does not compare well with the nil score for the day-caregiver and the trawler fisher; they have no intention to change careers as a way of developing the class of their occupation. Fishers and the office administrator were, however, only prepared to do so if there was no help from sources like community enterprise outlets, government aid, society on a whole to improve their working conditions or development of the class of their occupation (Nauta, 2010).

The trawler fisher's long association with fishing is also good grounds for his not desiring a career change. The day-caregiver's stated reasons in the group session, of high satisfaction with remuneration, job satisfaction, acceptance of the class of her occupation, and her own proclivity for childcare appeared as strong motivation for career retention vis-à-vis change (Nauta, 2010).

(vi) The 57.1% of fishers and the 100% of the rest of the group who thought the chances of improved community welfare was 'very good' through sustained community enterprise thus conveyed a sense of optimism, hope, and encouragement for the future of the class of their occupations. According to these scores, local fishing would fare well in the future (Bandura, 2011; Atkinson, 2018).

CONCLUSION AND DISCUSSION

The formative description and analysis of the background to the topic of fishing in the case study research site had attempted to sketch those factors, influences, processes, and dynamics of the class development of the occupation of fishing in the geographic context of Thailand (Solon, 2017; Creswell, 2010). That endeavor was especially applied in order to

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highlight how this occupation might be affected by community enterprise and have welfare implications.

Occupations in Thailand are shown to have no different features to those of other countries and that, like other countries, occupations exude symbolic power, reflecting the predisposition of their occupiers, their varying choices, sense of self, practical mastery, and class differences (Rollock, 2014; Bandura, 2011). Occupations are also indicative of social change and mobility when people change their occupations. In the occupation of fishing, these dynamics are split in terms of frequency, between its commercial and local, small-scale fishing sub-sectors (Bandura, 2011; Beller, 2009).

Commercially, Thai fishing commands recognition as top class occupation, and has for long not had the challenge and difficulty of developing its class as does its local, small-scale counterpart. The equal class that it has to other prestigious ones, like architecture and science, gives it an operational and productive advantage over local fishing efforts (Hout et al., 2016; Lambert and Bihagen 2014; Christensen et al., 2011).

Community enterprise has been shown up to be one of local fishing's most accessible reservoirs for tapping the sort of resources it would need to help in alleviating its production, management, marketing, and sustainability concerns. It is also regarded as both a vehicle for and product of community welfare. Obstacles, however, in the form of inadequate government and voluntary support systems make access difficult.

Individual businesses, private investors, and groups like the Andaman Coastal Fisheries Society in Southern Thailand could help fill gaps in resource provision [FAO, 2019 (ii)]. A local fishing community such as the case study Village 2 of Ban AoLuk would benefit, whereas more is needed for fuller recovery.

An overall analysis of the results of the few interviews and small focus group meeting with residents of the village offered up some indication of the level of awareness of, concern for, and association with, the small yet vital scale of local fishing on which the villages depend for their livelihood (FAO, 2016; Tveteras et al., 2012). In the context of the Krabi geography, social structure, and limited resources, heavy demands are constantly made on the coping capacity, self-control, perseverance, resoluteness, resilience, and psychological stamina of the fishing families in the Village. This situation confirms the poor class ranking of local fishing in the region. It also stymies any efforts to raise and develop that class to any meaningful level (Bhattacharya, 2011; Beller, 2009).

The analysis has also exposed the fishing community's reliance on outside help to overcome occupational difficulties such as sustainability, fishing grounds limitations, overfishing, poor marketing, difficult product management, and capital shortages. Community enterprises could well come to their aid without the burden of repayment or reimbursements (Cameron and Triveda, 2010). It could both help fill resource gaps and, in the process, be part of the effort to develop the class of fishing as an accredited occupation in the province.

Without proper, goal-directed, focused, and sustainable approaches in all its various forms, community enterprise inputs could raise the hopes of fishing families to unrealistic levels. It would therefore be incumbent on those who pilot community enterprise missions to consider several options, including: guidance for organized fisher groups; environment information and conservation skills training (Wiboonpongse, 2012; Jongwutiwes et al., 2010); teaching of self-management of fishing resources (Vongchavalitkul, 2015; Chimplee, 2012); teaching aquaculture; creating a fund for capitalization projects to be run by fishing families; running leadership courses; conduct of business and accounting training courses; teaching media science and social media communication techniques; career counselling; guidance for those wanting a change; extra schooling in standard education; skills training; personnel management; financial management; equipment management and repairing; psychological, work-related counselling for occupational purposes; personal problem-solving techniques (Halpern et al., 2019; Myers et al., 2017; Piketty, 2014; Santiwong, 2012; Jongwutiwes et al., 2010; Wu et al., 2009).

The community enterprise inputs described here have underlying and overarching relevance as far as the development of the occupational class and welfare of the target fishing families of the research is concerned. When analized with the aid of Bandura's (2011) Triadic Reciprocal Model of Causality, the fishers and their families would put their personal attributes like gender, age, and skills to better use; they would interact with circumspection, care, and discernment with their external environment. This would include their culture, family geography, fishing conditions, market, community enterprise, culture, and how to apply learning experiences in the fishing occupation as their overt behavior (Sumalia, 2012; Suebsutho et al., 20110.

Bourdieu's predisposition, practical mastery and social reproduction thoughts (Atkinson, 2018) apply

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here too. In respect of fishing as investigated in the present case study, it can be argued thus: through community enterprise, the fishing occupation can develop its class with the resources provided, leading to heightened community welfare of well-being and a better character structure of the occupation. Further, it would generate and stimulate better skilled behavior by its occupiers in the context of its operational confinements. These processes in turn feed social change in perceptions about local fishing. The overall contribution this community enterprise would make in the creation of a different social stratification and the interruption of the social reproduction of a society in which this fishing has low class classification, is clearly a real probability (UNGA, 2015; Sriwichailamphan, 2013).

In practical terms, the above would be visible and tangible in aspects of fishing in Village 2 that would otherwise not have been visible or tangible. All told, persistent community enterprise would have the potential to positively affect, in a sustainable way (Sachs, 2015), the community's capacity and ability to: manage their lives; make their own fishing policy; develop homespun leadership; engage in community action that matters; use self as local human resources; connect with people as required; use their cultural affinity and uniformity to good effect as in family business; value local wisdom; network with others for mutual benefits; be sustainable in all actions of the occupation; be more egalitarian; be open to life-long learning; adaptation to change; engage in efforts to rebrand the occupation; contribute positively to the development of the occupation in ways that they are best at; support fellow fisher families in any way they can (Reid et al., 2019; Paukert et al., 2016; Ott-Holland et al., 2013; Poku, 2015).

RECOMMENDATIONS

It is recommended that, as part of the community's endeavor to be part of efforts to develop their occupation class through community enterprise for its welfare, the fishers:

1.establish their own community-based strategy and management system for self-stewardship, decision making about marketing harvesting, compliance, and any other aspects of their occupation;

2.link up with government or private outlets for tapping community enterprise resources on a sustainable, ongoing basis;

3.adhere to and utilize the current community enterprises legislation to best advantage;

4.be informed of the suggested ways to develop the class of their occupation, especially those supported by the participants of, and analyzed in, the present case study;

5.be prepared to volunteer their participation in further, more in-depth investigation into the development of the class of their occupation in Village 2, into what extent community enterprise would influence it, and into its bearing on community welfare.

SIGNIFICANCE AND LIMITATIONS OF THE RESEARCH

The researcher considers it worthwhile and useful for the relevant professions, State agencies, professionals, and the community in Village 2 to be made aware of the various theoretical nuances and indeed the outcomes of their work as stakeholders and fishers. It is, however, about the challenging role of cooperative, reciprocal liaison between community enterprise outlets, the Thai State machinery, and the fishing community of the region that the study wishes to provide fresh insights, new knowledge, and suggestions for removal of obstacles (UNO, 2013). On the practical level, the study is regarded as a valuable effort to elucidate to partner professionals how the work of their allies in sustained occupational class development and community enterprise for community welfare gel for the common advantage of the fishers (Vongchavalitkul, 2015; Wiboonpongse, 2012). The study also addressed the filling of gaps in working relationships that could derail occupational class development endeavors.

Others who could benefit are the State development departments responsible for the fishing community in the Province. The findings of the study would potentially (a) encourage their renewed perception of and recognition of themselves as co-workers with communities, (b) help them recognize the value of inter-professionalandprofessional-nonprofessional approaches in and reduction of associated difficulties, and (c) spur the State on to sustain delivery of better statutory services according to the needs and capabilities of communities like that of Village 2.

The study has been small scale and its findings are therefore not to be regarded as representative of the thinking and experiences of the whole Krabi fishing community. It can, however, serve as a forerunner for other, more broad-based investigations of the topic of the present research (Creswell, 2014).

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ETHICAL CONSIDERATIONS

All participants in the empirical phase of the case study were selected and later treated with appropriate sensitivity, in recognition of their close connection with the aim and objectives of the research. During the initial approaches to garner the support and participation of the community, as well as during the interview and focus group sessions, additional ethical considerations were applied (Iphofen, 2016; Creswell, 2010). The researcher: (a) avoided physical and psychological harm to participants (b) guaranteed anonymity and confidentiality (c) handled collected data safely and securely, while informing those involved of all processes and findings (d) showed respect for the human rights of all involved (e) were anti-oppressive, non-discriminatory, non-sexist, and non-sectarian at all times (f) at no point forced participants to participate, (g) allowed participants to withdraw whenever they wished to (h) was prepared to report findings even if they were unfavorable to prevailing wisdom and orthodox opinion (i) handled all data safely and securely, (j) acknowledged the role played by participants in data collection (j) promoted human rights and social justice in the occupation of fishing, as well as (k) engaged in the research to serve the greater good (World Bank Group, 2019; Iphofen, 2016; Creswell, 2014).

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Guidelines of Funeral Welfare Management for the Elders in the Muslim Way, Kayohmati Community, Bajo District, NARATHIWAT Province

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ABSTRACT

This study aims to analyse the funeral welfare for the Muslim elders and to suggest guidelines regarding the funeral welfare management for the Muslim elders. The guidelines might help stakeholders to investigate and manage the welfare more effective and stable through participatory process. Further, this would help the group to get more members which would lead to a quality and sustainable funeral welfare for Muslim elders in the Kayohmati community.The design of this study is mixed method. First, the researchers employed phenomenological research to explore the community's life experience for the primary data. The researchers investigated the meaningful aspects and understandings through conversations, in-depth interviews, focus-group interviews, and questionnaires. The researchers used content synthesis to form guidelines of the funeral welfare management, which was classifying and categorizing topics and arranging concepts. The qualitative data was carefully reconfirmed, and the quantitative data was analysed into frequency, average, and percentage. Moreover, to conduct the research professionally the researchers followed research ethics firmly and this research had been approved for research ethics code of conduct.

The findings regarding needs of the funeral welfare were as follows: the elder members who are low-income need career workshops to support their finance. Furthermore, it was found that community leader plays a key role in facilitating and encouraging collaboration among the community, government, and academic sectors to form public policy. Therefore, the government sector should collaborate with the community which the people could express their performance and self-autonomy and the findings confirmed that we can develop it to public policy and guidelines for the welfare founders, committees, and members to improve the welfare's management system. Also, there could be guidelines to increase medical welfare and income for the elders. The novelty or originality of this studyproposed the funeral welfare management model is getting from the management of Muslim welfare that is sustainable and fit with the local context, religion, knowledge, self-value, and belief in a particular area.

Keywords:Funeral welfare management, Muslim elders, Kayohmati community, Bajo district, Narathiwat province.

INTRODUCTION

In the past, Thai people had a life span of around 50 years, yet in the present, it is 73 years and it will be expanding to 80 years in the future. The death rate of Thai people is 400,000 per year and continues rising. In the next 20-30 years, it will be increasing to 600,000 per year which implies that the Thai population number will be stable. (National Statistical Office, 2017; White, 1982) In 2559, there were 10 percent or 9 million 65's year's old elders in Thailand and it was increasing continuously. This shows a rapid change in the elder population. According to several Thai populations between 2558 -2573, Thailand is becoming an aged society, and, in the future, it will be a completed aged society. This change portrays the future image of Thailand, additionally, a key concern goes to how the elders should be taken care of. The elders should earn basic rights according to the Act on the Elderly B.E. 2556, section 11 as "the elderly have rights to get medical supports and services conveniently and fast".

The case of death, there is 2,000-baht bath funeral support for low-income elders. This support could be redeemed within 30 days after the dead announced. (Ministry of Social Development and Human Security, 2016)

Regarding the Southern region context, Narathiwat

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province has 83,671 elders in 60's years and it is in a status of ageing society. The province gets funeral support from the government but in some districts, for example, Maung, Yeengo, and Bajo form funeral welfares for their people which are Chareekatmetee, Nawat, and Mueningkandiinya.

In Bajo district, there are 4,449 elders which are 8.96 percent of 49,611 members. The Kayomati community established a funeral welfare fund for elders who have low-income, therefore, those elders could access a full function of the funeral according to the Muslim culture. Moreover, the welfare fund sets the terms in joining which are the prospects should 1) be 60 years or older and 2) not be government officers. Each member will earn 10,000 baht for the funeral expense including bathing, wrapping, praying, carrying, and burying the deceased. This welfare fund offers benefits more than the governments and people in the community trust in the management system which leads to an increase of the welfare fund member.

The researchers, government sector, and community agreed that a manager of the welfare fund was selected by the government sector who have a certain period in the position. When the manager is not in the position, there will be delays in having the new manager and financial and accounting management. It will cause insecurity and instability within the community. All the mentioned stakeholders brainstormed and suggested guidelines to maintain and improve the welfare sustainably.

RESEARCH OBJECTIVES

The objectives of this research were to: (1) analyze the funeral welfare fund for the elderly in the Muslim Way in Kayohmati community, Bajo district, Narathiwat province, and (2) to suggest guidelines to improve the funeral welfare management.

LITERATURE REVIEW

In this study of Development Practices to Welfare Funeral Management for the Elderly in the Muslim Way in Kayohmati community, Bajo district, Narathiwat province, the researchers reviewed related documents and research articles of Muslim funeral management, fund management, participatory concepts, and syarikatmati principles to conduct the research thoroughly and to suggest guidelines to improve the welfare based on the community as follows:

(A)MUSLIM FUNERAL CONCEPTS

Steps of Muslim funeral includes bathing, wrapping, praying, and burying. It is believed that the steps should be provided to those who deceased for the community's sake. The following details are for each step.

2.1 Bathing refers to cleaning the corpse by Muslims who are well-trained. In case of the deceased was male, the ceremony takes place in a men's mosque and male family members could bath the corpse. In this case the deceased was female, the ceremony takes place at a women's mosque. Female members could perform the bathing. Also, there is a controversial issue on a wife bathes a husband which some people do not agree but some do (Muhamud, 2010).

2.2 Wrapping is to use 3-layer white cloth to wrap the body. Each layer is powdered with incense. The expense must be acquired from the deceased's asset, heir, or Muslim welfare (Muhamud, 2010). Moreover, there is Yanaza prayer which happens after wrapping the body, then saying the prayer. The rules for saying Yanaza prayer is the deceased must be Muslim only and it should be placed in front of the praying person even the corpse is buried. The more people participate in the funeral, the more benefits a mosque will get (Muhamud, 2010).

2.3 Burying includes digging, delivering, and burying. To dig a grave, it should be fit with the body then wooden planks are placed to secure the corpse. To deliver the body, Muslims will walk from home to a praying area or a cemetery. Walking from home to a cemetery is the best way to deliver. People who are in the delivery must be quiet. Incense, prayer, music is not allowed. The followers could walk in front or aside yet walking after the body is recommended. To bury, the corpse must be secure by wooden planks and the grave should be deep enough. It is allowed to bury more than 1 body in a grave which is a man, a boy, a woman, and a girl respectively by putting a man's body in Kibla way then bury a woman's body. If those bodies are not in coffins, they have to separate by wooden planks. Male members are preferred to bury the deceased (Muhamud, 2010).

Besides, Islam encourages people to visit the deceased's family for giving mental supports and allows the family to be in mourning by having 3 days off except a wife must be in mourning for 4 months and 10 days. If the wife is expecting, she should be in mourning until delivery. To be in mourning, people can wear normal clothes but cannot be moaning nor hurting themselves (Abdullor, 2019). To carrying out a funeral regarding Islam, there are 4 principles which are bathing, wrapping, praying, and burying.

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Table 1 Expenses on Islamic funeral

Ceremony	Tools	Prices
Bathing a corpse	- scissors (to tear off the old clothes) - gloves - sponge or towel - grinder or mortar - plastic bags - soap and shampoo - Jujube leaves - Camphor - Face masks - cotton pads - A flower sachet - Air refresher - Nail clippers	42 baht 16 baht 85 baht 150 baht 35 baht 50 baht - From the community 20 baht 120 baht 250 baht 125 baht 25 baht 25 baht
Wrapping a corpse	- White cloth - Cotton pads - Borneol flakes	600 baht 400 baht 60 baht
Praying to a corpse	- Cash for people who come to pray - Religion leader's expense	40 baht per person (minimum) 100 baht per person
Burying a corpse	- digging service - A coffin - Transportation	600 baht 800 baht 200 baht
Total		**12,603 baht**

Source: (Tohsoh, personal communication, November 18, 2017)

(B)FUND CONCEPTS

The researchers introduced concepts of a village and urban community fund and process as follows:

"village and urban community fund" been established to be a source of financial support for people in a community. The fund enhances collaboration among members, moreover, it employs systematic processes which are a unit of management and promotion for borrowers and a unit of procedure of a borrower. To establish the fund, there are 3 principles which are (1) readiness of the village or urban community (2) Revolving fund management in a community, and (3) Assessment and evaluation (Bureau of Educational Standards, 2002; Chareonwisarn, 2008). According to the document analysis, a concept of village fund is based on poverty, inequality, accessibility, distribution of finance, and investment provided by the government. Consequently, low-income people turn to set their revolving fund system. The first local financial institution was established in 1965 at Lamplaimat district, Buriram province. Christians also had Credit Union in Bangkok at Dindang and Huakwang area and this institute is expanded to the urban community. In 1974, a savings group for production had been set by the government also many financial institutes had been set by locals and supported the government.

In the south of Thailand, the fund concept was employed in 1980 by the Keereewong savings group and Namkwao savings group, Songkla province. In 1982, a savings group of Klongpia subdistrict, Jana district, Songkla province was established. In 2015, the fisherman fund of Pakbang village, Jana district, Songkla province was set. In B.E. 2530, the Sakat fund of kwantoh, Satul province was established. The aforementioned was set up by its local wisdom elites. In 1989, the community bank was established by King Rama 9 cooperating with Kasetsart University. The community bank aims to encourage low-income people to save up money and provide financial products (Chareonwisarn, 2008; Noisanree, 2007; Office of the National Village and Urban Community Fund, 2020;

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Wajasit, 2003; Wannapira, 2017; Cohen & Norman, 1980; Dumas, 1991). This bank could improve people's lives by decreasing expenses, increasing investment opportunities, and providing learning resources. The village and urban community fund concept aim to enhance self-autonomy, therefore, members of a community will be able to manage, evaluate, make decisions, and work together. The community would have a strong financial institute where their members can participate and collaborate. There are 6 purposes of having a community fund (Village and Urban Community Fund Office, 2020):

(1) to build up a strong, transparent, and effective management community fund;

(2) to have the fund as a tool for solving problems and making decisions;

(3) to have a revolving fund for the members to invest or to save up;

(4.) to have the members deposit and get loans from other financial sources

(5.) To give loans to another village fund

(6.) to improve the members' life quality, security, and welfare.

(C) PARTICIPATION

With Participation refers to being a part of the decision-making process but it should be done along with working. Moreover, the 9th National Economic and Social Development plan highlight participation such as participation of people in contributing plans and brainstorming 20-year visions. Further, participation provides people opportunities to explore, plan, and set which can be followed up and evaluated. This goes in line with Ervin (1976) (Cohen &Uphoff, 1977) that participatory is to have people incorporate to make decisions for their community and employ proper technology to support. Gustavo (2014) states that participation is to have a part of an activity and it associates with individual responsibility or change process. Whang (1981) mentions that participation is a working process of individual or group which reflect the interest or support an institute/system. Moreover, UNISEF (1982) says that participation is self-confidence, freedom, and the community participation. A project would be successful if it is run by a community.

To conclude, participation refers to a group of people or organization runs an activity by brainstorming, planning, collaborating, following up, evaluating, and developing. The people would earn benefits such as exploring their community, exchanging ideas, solving problems, and being responsible.

Regarding this study, participation relates to the welfare of the Kayamati community, for instance, members participate in joining, planning, and working together with voluntary.

(D) SYARIKATMATI CONCEPTS

Syarikatmati refers to funeral welfare for people who are not members of the community funds. The expenses would be paid when there are dead. The founder was Mr. MahamasakueriTaemamu. There are 700 members. Terms in joining the welfare are 1) paying 300 baths for being a member 2) the investment expense is deducted from the elderly fund for 20 baths when there are dead announced and 3) the payment for each funeral is 10,000 baths.

The concept intends to help low-income families. This help has followed the religion's principles regarding financial supports because Islam mentions that if there is a deceased in a community, the funeral must be arranged immediately. The funeral expense is expensive so being a member of the funeral welfare makes the deceased's family feel secure. This leads to good mental health which is a factor of a good quality of life. According to Islam, having funeral welfare means a great help since it is important to manage the ceremony. The cost of the ceremony is high so it would be better if the deceased's family could get financial support from the community welfare (Taecharin, 2016).

Consequently, to provide good welfare is not only the government's responsibility but also Muslims' which they could help each other to protect, support, and encourage. Syarikatmati in Islam refers to helping a low-income family regarding funeral expenses.

RESEARCH SCOPE ON WELFARE FUNERAL MANAGEMENT

This study: Development Practices to Welfare Funeral Management for the Elderly in the Muslim Way in Kayohmati community, Bajo district, Narathiwat province, the researchers set the scope as follows:

(1.) Content This study aims to explore guidelines in developing the funeral welfare management for the elderly in the Muslim ways, Kayohmati community, Bajo district, Narathiwat province.

(2.) Population and sample group

(2.1) The population was 713 members which were 1. 700 active members 2. 12 committees (2 per village, 6 villages) 3. 1 founder.

(2.2) A sample group was 263 members by using

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Taro Yamane table (Yamane, 1973; Podhisita, 2017)

(3.) The area was Kayohmati community, Bajo district, Narathiwat province,

(4.) The duration was from August – December 2017

METHODOLOGY

The study employs a research-based Development design which aims to analyse current context and problem and suggest guidelines (Boonprasaert, 2016) as follows:

PROCEDURE FOR DATA COLLECTION AND ANALYSIS

The researchers collected 2 types of data which are document analysis and field trip.

(1) Document analysis refers to reviewing related documents and research, recording the data, classifying, categorizing ideas. The findings from this phase have been used to create research instruments and interview guidelines. The researchers cooperated with the welfare and stakeholders for a field trip.

(2) Field trip the researchers collected data at the specific area and used the instruments which are

(2.1) Questionnaire It was created based on fund concept, participation, syarikatmati, welfare management. It consists of 5 sections which are 1) general information 2) survey on community welfare 3) participation of the community regarding welfare management 4) Syarikatmati and welfare management and 5) suggestions.

(2.2) In-depth interview and focus-group interview They are to study participation in welfare management. The aspects in the interview were developed based on related document and research which are 1) Ways of life 2) Local context, mindset 3) getting supports from the welfare 4) the funeral welfare management and 5) guidelines to improving the welfare

The researchers followed the research ethics code of conduct in every phase of the study to ensure all key informants regarding personal information.

To analyze the data, the researchers conducted as follow:

(1.) Questionnaires They were coded and analyzed as

(1.1) Personal information data was analyzed as frequency, average, and percentage.

(1.2) Participation data was analyzed as average and SD.

(2.) Interview forms to collect data, it was divided into 3 types Appleton (1995): 1. Analytic Induction 2. Typological Analysis and 3. Constant Comparison (Wongrattana, 2010) as

(2.1) Reconfirming the information with the sample group regarding the 5 aspects.

(2.2) Classifying the data by transcription then categorizing all the data systematically (Jongwuthiwet, 2010).

According to the procedure for data collection and analysis, it could be concluded as in Figure 1.

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1. Collecting data to analyze the welfare and suggest a guideline

1.1 Document analysis refers to reviewing a related documents, research, and websites, recording the data, classifying, categorizing ideas. The findings from this phase have been used to create research instruments and interview guidelines.

1.2 Field trip refers to applying a questionnaire and in-depth interview form and focus-group interview

2. Procedure for Data Collection and Analysis

To analyze the data, the researchers conducted as follow:

(1.) Questionnaires They were coded and analyzed as

(1.1) Personal information data was analyzed as frequency, average, and percentage.

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(2.1) Reconfirming the information with the sample group regarding the 5 aspects.

(2.2) Classifying the data by transcription then categorizing all the data systematically (Jongwuthiwet, 2010).

4. Acquiring guidelines regarding development of the funeral welfare management.

3. Reconfirming the analysed data and classifying again

Getting the findings confirmed by 7 experts from policies and plans, community welfare, community fund,

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FIGURE 1: DIAGRAM OF PROCEDURE FOR DATA COLLECTION AND ANALYSIS OF DEVELOPMENT PRACTICES TO WELFARE FUNERAL MANAGEMENT FOR THE ELDERLY IN THE MUSLIM WAY IN THE KAYOHMATI COMMUNITY, BAJO DISTRICT, NARATHIWAT PROVINCE.
SOURCE: (AUTHORS ' ANALYZED AND DESIGN)

RESULTS AND DISCUSSION

The results and discussion of the study are as follows:

(1) THE ANALYSIS OF THE FUNERAL WELFARE MANAGEMENT FOR ELDERLY

(1.1) According to the questionnaire, the elderly aged between 60-65 years old and 66-70 years old respectively. 25.60 percent was female and 57.90 percent was male. 50.8 percent completed the primary school level. 91.3 percent were bakers, craftsmen, and farmers. 28.3 percent were Muslim. 100 percent was low-income and 81.5 percent earned 3,000 baths a month.

(1.2) The overall satisfaction of welfare management was at a high level (4.24). The item of "Having the welfare for helping temporary job members" was at the highest level (4.57) and "Participation in the welfare" was at the lowest level (3.88).

(1.3) The overall satisfaction of participation in welfare management was at a moderate level (2.91). The item of "being participated in planning" was at 3.20 and "being participated in the village representative" was at 2.62.

(1.4) The overall satisfaction of participation in the working process was at a moderate level (3.00). The item of "participating inactivity" was at 3.18 and "participating in budget support was at 2.87.

(1.5) The overall satisfaction of participation in earning the welfare benefits was at a moderate level (3.12). The item of "earning proper budget in arranging the funeral" was at 3.64 and "earning other fringe benefits from the welfare" was at 2.31.

(1.6) The overall satisfaction of participation in following up and evaluation was at a moderate level (2.82). The item of "participating in following up and evaluation of the budget management" was at 2.92 and "participating in following up and evaluation of the welfare's successfulness" was at 2.78.

(1.7) The overall satisfaction of syarikatmati and the welfare management was at a moderate level (2.54). "Syarikatmati concept was perceived as important" was at 4.41 and "Do not follow the Islamic rules would lead to negative effects" was at 1.56.

(1.8) The overall satisfaction of guidelines in developing the welfare was at a moderate level (2.96). The item of "The members need medical welfare to be increased" was at 4.39 and "The member needs the

mosque to collaborate in running the welfare" was at 1.63.

People in the community is Muslim. All the elderly attends religious ceremonies every week. They are farmers. The local wisdom elites are good at many aspects such as crafting, child delivery, bone treatment, fortune-telling, politics, and social sciences, and management. Further, they work with the funeral welfare.

The welfare provides a budget on funeral ceremonies to members. The member will pay 300 baths bath first for their budget and the welfare will collect 20 baht each time when there is the dead announced which relates to the research of Jeawkok (2019). On Syarikatmati: a case study of the Kuwa community, Su-ngaiPadi district, Narathiwat province. It was found that the fund aimed to help low-income members regarding funeral ceremony expenses. The budget collected 120 baths bath once a year from January to March. The deceased family would get 1,000 baths bath. In the case of a non-member, a mosque would take responsibility. The fund consisted of 9 committees and they were volunteers. The money had deposited at an Islamic bank. The committees and the members attended every meeting together to brainstorm, make decisions, follow up, and evaluate. (Jeawkok, 2019; Hangkasee, 2018; Community Development Institute, 2015; College of Islamic Studies, 2015) also mentions that participatory research led to practical solutions since people in a community could share and participate in finding solutions for their community.

(2) Proposing Guidelines in improving the welfare management

According to the proposed guidelines, an additional concern was a medical expense. This relates to a study from Kama (2009) and Puri (2004). on Syarikatmati: a case study of Baan Wang community, Wang district, Narathiwat province. It was found that the community had funeral welfare and elderly fund. There were 259 members. The members would get 500 baths twice a year for medical support and 3,500 baths for decreasing (Parinyasutinun, 2016; Kamput, 2015).

The researchers introduced medical support and career support to the community for further projects. For career support, the welfare could help the elderly to continue working by providing tools which go in line with Jeawkok (2017) study. It was found that the Tana

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community spent some money from the fund to arrange fishing tools at a cheap price for the members. This was a strategy to encourage members to work and earn extra income.

(2.1) In the past, the funeral welfare experienced problems regarding finance which affected the deceased's family. The researchers and the stakeholders brainstormed and collaborated to gather information and form practical guidelines. The community leaders should take the key role in facilitating members and coordinating with stakeholders. Moreover, the government should have the community take part in improving and developing, therefore, people could live their lives effectively.

People in the community are Muslim. All the elderly attends religious ceremonies every week. They are farmers. The local wisdom elites are good at many aspects such as crafting, child delivery, bone treatment, fortune-telling, politics, and social sciences, and management, further, they work with the funeral welfare.

The welfare provides a budget on funeral ceremonies to members. The member will pay 300 baths first for their budget and the welfare will collect 20 baht each time when there is the dead announced. The committees and members will have every meeting together to lessen miscommunication. The 10,000 bath budget is enough for one funeral ceremony which relates to the study of Jeawkok (2019) that a fisherman community in the Andaman Sea had established welfare based on the culture and Islam, moreover, participation from everyone created community welfare.

The researchers analyzed the quantity data and designed guidelines in improving the funeral welfare by employing a participatory concept which everyone could initiate, plan, act, earn, and evaluate. The members would be able to learn many aspects together, take part in planning policy, objectives, and working process, develop activities, and build up a relationship as shown in Figure 2.
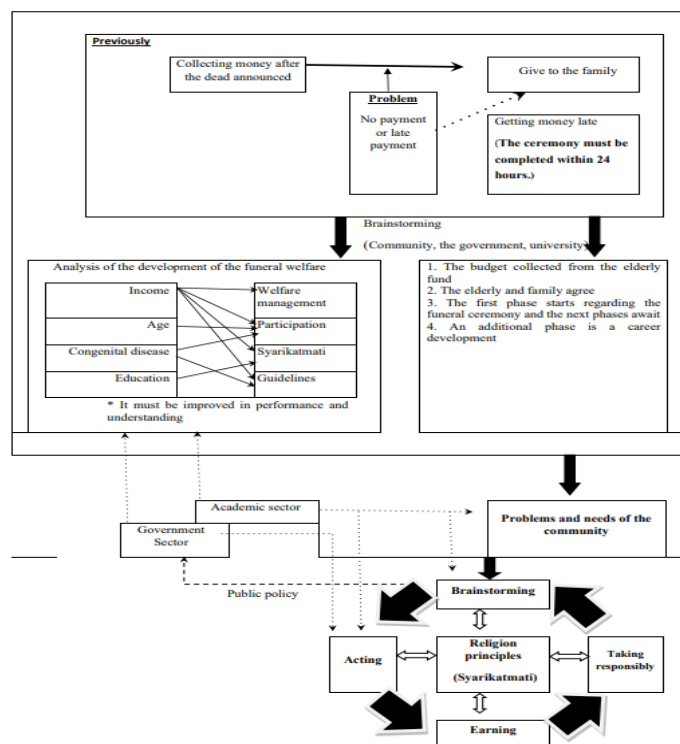
Figure 2 Introducing guidelines in improving the funeral welfare management
Source: (authors ' analyzed and design)

The researchers introduced guidelines in developing the funeral welfare management which is analyzing the welfare, improving the community performance, raising the common understanding regarding income, age,

congenital disease, and education which might affect welfare management, participation, and development based on the religion. Then, the researchers took all aspects into account to plan a procedure which is the

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budget will be collected from the elderly fund, the elderly and family must agree to terms and conditions, the welfare runs the funeral ceremony and career development. These would benefit the community and people could follow up and evaluate the welfare performance at the same time. The community leaders should facilitate, encourage, and coordinate stakeholders so it would lead to public policy for long-term management.

CONCLUSIONAND DISCUSSION

According to the study, the discussion is as follows:

1. Analysis of elderly care management in the Kayohmati community

The people in the community are Muslim. Every week on Friday, all the elderly attends the Mosque for Islamic religious lectures. In the Kayohmati community, farmers are mainly the elderly and few of them are contractors. They have two annual festivals in the Kayohmati community: Ashura Day and Moulid Day. The local wisdom elites are good in many fields, such as crafting, child management, bone care, fortune-telling, politics, social sciences, and management, and they also deal with funeral welfare. In addition, they are a part of welfare management that aims to provide members with a budget for funeral ceremonies. The members will pay 300 baht for the first time collecting their budged. The they will be collected 20 baht each time when there is the dead announced which relates to the research of Inda (2012). (Samue, 2015; Keeratinawanun&Rattanachuay, 2019; Rattanachuay, 2017) on Syarikatmati: a case study of the Kuwa community, Su-ngaiPadi district, Narathiwat province. It was found that the fund targeted to help low-income members with funeral ceremony expenses. Also, contribute the reward to funeral prayers. Each family will be collected a budget of 120 baht once a year from January to March. The deceased family would get 1,000-bahts. In the case of a non-member, a mosque would take a responsibility for collecting the budget. The fund consisted of 9 committees in which the Islamic priest is the principle assigning the duty to the volunteer team. The money had deposited at an Islamic bank (Keeratinawanun, 2015; Puanghnam, 2019; Spicker, 2017; Sepulveda, 2014).

The committees and members attended every meeting together to brainstorm, make plans, and maintain the coordination of each village's committee for reducing the risk of financial problems (Pinker, 2019; Dixon &Shik Kim, 2016; Hadley & Hatch, 2018). Every meeting was attended together by committees and representatives to brainstorm, make arrangements, and maintain the coordination of each village committee to minimize the risk of financial problems also, follow up and evaluate the management plans in order to manage matters properly budget which relates to the research of Cole et al. (2017) and Ronald et al. (2015). that conducts Participatory Action Research for the development community. The purpose of the study is to create, specifically solve community issues, which is the product of the brainstorming of many participants who started from the community to seek for the problems, solutions, and improve together (Marla, 2016; Benjaafar et al. 2018). As well as solving economic issues, politics, and group cooperation (Geir et al., 2018). Besides, to manage a 10,000-bahts welfare budget to assist g lower-income members in funeral ceremonies to complete the religious provision.

2. Proposing guidelines for improving welfare management in the community of Kayohmati

According to the proposed guidelines, an additional concern was medical expenses. This relates to a study from Rattanachuay (2017) on Syarikatmati: a case study of Baan Wang community, Wang district, Narathiwat province. They are Muslim. It was found that the community had funeral welfare and elderly fund. There were 259 members. This fund began with 72,900 baht, which is deducted as welfare from the elderly allowance of 300 baht. The members would get 500 baths twice a year for medical support and 3,500 baths for decreasing. The result after the proposed guideline to the founder and fund committee found that the way that can lead to improving welfare management for the elder in Kayohmati community, Bacho District, Narathiwat Province as following; First, to increase the welfare of medical support. Also, to promote the job's sales. The proposing welfare management is difficult to improve because the group have difficulties to develop the fund, it takes longer to operate. Thus, the fund aims to help the elder who is the lower-income member increasing medical support which goes in line with Rattanachuay (2017) study, the President of the Subdistrict Administrative Organization (PSAO), mentioned that people in Weang District are Muslim. Their ideological thought base on the Islamic way. In Waeng district also have the Syarikatmati which was a funeral elderly fund and the elder welfare. There are 259 members now. This fund started from 72,900 baht, which was deducted as the welfare from the elderly budget for 300 baht. The members would get 500 baths twice a year for medical assistance and 3,500 baths for decreasing said Rattanachuay (2017). Besides the interesting concrete,

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this research was honoured by the expert of elder health care, said the president of the Association of the Elderly of Thailand Royal patronage under the Princess Mother's Medical Volunteer Foundation said that the local authorities must take a role in management. The purpose of the fund is to assist the lower-elder members who need the welfare to support their career and create further jobs which relate to the study of Jeawkok (2019) that a fisherman community in the Andaman Sea had established welfare based on the culture and Islam with cooperation among community while The Tamalang group, in the form of Zakat, began to provide welfare. A portion of the money was reserved for purchase of the fishing equipment and sold at the capital price, helping to create community jobs, as well as the Pak Nam community began to provide community by diving profits into the Zakat fund.

LIMITATION AND STUDY FORWARD

The limitations of the study are 1) Area of the study Due to the conflicts in the South of Thailand, we must collect the data as quickly as we could. Some aspects might not be explained in this study. 2) The process of collecting data might delay since the sample group must attend their religious ceremony.

The study forward, we plan to study successful factors of the welfare and follow up the welfare officers' performance on approving medical support (1,000 baht per year) and career support for the elderly.

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AUTHORS CONTRIBUTION

JirachayaJeawkok is responsible for conducted the experimented, analysed the data of the article. SawatLaipaporn is responsible for the conceptual framework and literature review., Nawapon Kewsuwun is responsible for writing, corresponding the paper, discussion, conclusion sections, and approved the final version of the manuscript. AbdulkhaligArrahimee: Responsible for grammar, words checked, discussion, conclusion sections, and planning manuscript outline.

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A Model of Professional Learning Community Promotion based on Kalyanamitta Principles of Opportunity Expansion Schools under Office of Primary Educational Service Area

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Abstract— The purposes of this research were 1) to study the current situation and problem of professional learning community of opportunity expansion schools under Office of Primary Educational Service Area, 2) to develop a model of professional learning community promotion based on Kalyanamitta principles of opportunity expansion schools under Office of Primary Educational Service Area, and 3) to propose a model of professional learning community promotion based on Kalyanamitta principles of opportunity expansion schools under Office of Primary Educational Service Area. Mixed methods research was used for research design. Qualitative research was conducted by documentary study from documents, research reports, articles, thesis, and related research including in-depth interview. Model was developed by focus group discussion and data were analyzed by content analysis. Quantitative research was collected by assessment questionnaires in 4 areas consisted of 1) utility, 2) possibility, 3) suitability, 4) correct. Statistics used for data analysis consisted of percentage, mean and standard deviation. Results indicated that 1) the current situation and problem of professional learning community of opportunity expansion schools under Office of Primary Educational Service Area showed the first order was knowledge management, the second order were two aspects of need assessment consisted of shared leadership and learning and professional development, the third order were two aspects of need assessment consisted of shared vision and Kalyanamitta community, and the fourth order were two aspects of need assessment consisted of collaborative working team and supportive structure of professional learning community. 2) A developed model of professional learning community promotion based on Kalyanamitta principles of opportunity expansion schools under Office of Primary Educational Service Area showed overall at the highest level. Utility and correct were showed at the highest levels, whereas suitability and possibility were shown at high levels respectively. 3) A model of professional learning community promotion based on Kalyanamitta principles of opportunity expansion schools under Office of Primary Educational Service Area was develop in 3 components consisted of the first component of introduction, the second component of process guideline, and the third component of results

Index Terms— *Professional Learning Community, Kalyanamitta Principles, Opportunity Expansion Schools*

I. INTRODUCTION

In current world, human development is essential to the development of the country. The government has a policy of developing people of all ages by promoting lifelong learning, so that they can acquire knowledge and new skills that can work in a variety of jobs according to employment trends for future adjustment of the learning process and curriculum in connection with the landscape and society by integrating knowledge and morality together in order to facilitate the development of learners in terms of knowledge, skills, learning, problem solving, listening to opinions of others, morality, ethics and good citizenship with an emphasis on cooperation between stakeholders both inside and outside the school. National Education Plan 2017-2036 set learner aspirations, aiming to develop all learners to have 21st Century Learning Features and Skills (3Rs8Cs) include 3Rs and 8Cs [1]. Education systems need to develop in response to change, with teachers as "coaches" who design the learning process and learn to help learners achieve results. It is important that teachers in the 21st century do not establish themselves as "knowers" but must seek knowledge at the same time as the learner. At the same time, learning in the 21st century has to transcend

"subject matter" to learning. "21st Century Skills" where teachers will design learning, train themselves as a coach (Coach) and facilitate (facilitator) in problem-based learning. Problem-Based Learning (PBL) of students what is the help of teachers in learning management is the teacher learning community for students (Professional Learning Communities: PLC) which it arises from the gathering of teachers to share experiences of their duties [2]. The professional learning community is also an integral part of the quality assurance within the school. According to the 2018 Educational Quality Assurance Ministerial Regulation Policy, the policy of reforming the system of assessment and quality assurance of institutions study and announce early education standards basic education level and basic education level, Special Education Center 2018 of Standard 2, Administrative and Management Process Standards Assessment of standards for teacher and human resources development is an important factor in ensuring the quality of education management meets the established educational standards. Emphasis is placed on professional expertise which requires ongoing development that meets the needs of both the individual and the exchange of knowledge in the form of building a professional learning community [3]. Teacher development with a professional learning community is also relevant to the request for having and postponing the new academic standing in accordance with the Criteria of Books of the Office of Kor. Sor Kor. 0206.3 / Wor 21 dated July 5, 2017, requiring teachers to have and request a promotion there must be no less than 50 hours of participation in the Professional Learning Community (PLC) each year, in addition, according to the letter of the Office of Kor.Sor. 0206.7 / Wor 22 dated 5. July 2017 requires teachers to be developed by continue training in courses certified by the Teacher Development Institute in accordance with the academic standards or certified by GTEPC every year, each year not less than 12 - 20 hours and within 5 years must have 100 hours of development hours. If within 5 years of development hours are not 100 hours, the excess of 50 PLC hours in each year can be counted hours of development [4].

The Ministry of Education has expanded educational opportunities and opened schools to expand basic educational opportunities distributed in other provinces is a school under the Primary Educational Service Area Office Teaching from Kindergarten to Grade 3 and some educational institutes provide instruction from Kindergarten to Grade 6, which within the same school have quite a large age difference. Problems arising from teaching and learning are many as well, and at the same time teachers have a wide variety in their major fields can teach both at the elementary and secondary levels. The researcher is directly involved in the provision of school education to expand educational opportunities. Recognizing

the importance of teacher professional development with a professional learning community that will be effective for student quality. teachers and schools at the same time. "The school's professional learning community model extends educational opportunities under the Office of the Primary Educational Service Area ".

II. RESEARCH OBJECTIVES

The purposes of this research were 1) to study the current situation and problem of professional learning community of opportunity expansion schools under Office of Primary Educational Service Area, 2) to develop a model of professional learning community promotion based on Kalyanamitta principles of opportunity expansion schools under Office of Primary Educational Service Area, and 3) to propose a model of professional learning community promotion based on Kalyanamitta principles of opportunity expansion schools under Office of Primary Educational Service Area.

III. RESEARCH METHOD

A. Research Design

Mixed methods research was used for research design [5]. Qualitative research was conducted by documentary study from documents, research reports, articles, thesis, and related research including in-depth interview. Model was developed by focus group discussion and data were analyzed by content analysis. Quantitative research was collected by assessment questionnaires in 4 areas consisted of 1) utility, 2) possibility, 3) suitability, 4) correct. Statistics used for data analysis consisted of percentage, mean, standard deviation, and need assessment [6].

B. Research Process

Research into the school's professional learning community model, expanding educational opportunities under the Office of the Primary Educational Service Area there are 3 steps to the research process as follows:

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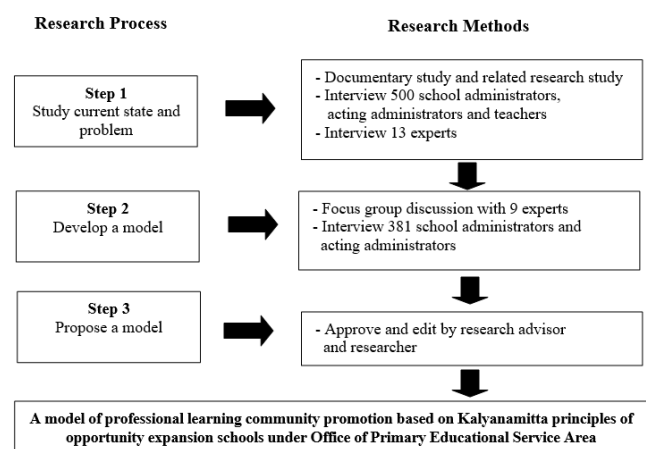
Fig. 1 The research process of the school's professional learning community model, expanding educational opportunities under the Office of the Primary Educational Service Area

From the figure can be described as follows.

Step 1 Study the current conditions and problems of the school's professional learning community, expand educational opportunities. Under the Office of the Primary Educational Service Area Analyze information from documents Relevant research in the country And related research abroad to be used as a research framework create a questionnaire questioned the sample from the multistage randomization method, the respondents were 400 samples from the school director or acting in the position of the school director or teacher, and created a semi-structured interview with 13 experts by purposive sampling, and selection criteria consisting of academics, educational administration, scholars of the professional learning community school director and school teacher expand educational opportunities under the Office of the Primary Educational Service Area The data were analyzed by content analysis, mean, percentage, standard deviation, and need assessment.

Step 2: Develop a professional learning community model according to the school's Kalyanamitta principles, expand educational opportunities under the Office of the Primary Educational Service Area by drafting a professional learning community model according to Kalyanamitta principles from the study of step 1, discussion of the expert group of 9 images / person by selecting a specific model. Analyze data through content analysis. The model was examined by using questionnaires in 4 areas: 1) utility, 2) possibility, 3) suitability, 4) correct, from multi-step randomization informants are education director or acting school director. Schools expand educational opportunities Under the Office of Primary Educational Service Area of 381 persons, the statistical analysis was percentage, mean and standard deviation.

Step 3: Propose a model of professional learning community promotion based on Kalyanamitta principles of opportunity expansion schools under Office of Primary Educational Service Area by improving, revising and presenting the school's professional learning community model, expanding educational opportunities Under the Primary Education Service Area Office by an advisor (chairman of the board and director) and the researcher to analyze the data by content analysis.

IV. RESULTS

1. Current conditions and problems of the school's professional learning community expand educational opportunities. Under the Office of the Primary Educational Service Area the first priority is knowledge management, and second order has two equally important needs: In terms of co-leadership and learning and professional development, the third side had equal needs in two areas: Have a shared vision and the fourth aspect is the Kalayanamit community and there are equal needs in two areas in terms of teamwork, collaboration and structured aspects to support professional learning communities.

2. Development of a professional learning community model according to the school's Kalyanamitta principles to expand educational opportunities under the Office of the Primary Educational Service Area Overall, it is at the highest level. The mean at the highest level was useful accuracy side. The areas with a high average were suitability and possibility aspect.

3. Model of a professional learning community according to the Kalyanamit principles of the school to expand educational opportunities under the Primary Education Service Area Office, consisting of 3 components and results obtained with details as follows:

Component 1: the introductory component has the following main points:

1.1 Principles of the professional learning community

1.2 Objectives of the professional learning community

1.3 Context and feeders of the professional learning community

Component 2: the operational guidelines consisted of 2 parts: the element of promoting the professional learning community according to the Kalyanamit principle. And the process of promoting the professional learning community There is the following essence

2.1 Components for promoting professional learning community according to Kalyanamit principles consist of

1. Composition of a professional learning community

(1) have a common vision

(2) being a united team Is a feature of

(3) have co-leadership

(4) learning and professional development

(5) be a kalyanamit community

(6) there is a structure to support the professional learning community.

(7) knowledge management

2. Kalyanamit

(1) the person who is pretty (Piyo)

(2) person of respect (Khru)

(3) the one who praises (Pawaniyo)

(4) people who know the words (Watta ja)

(5) persons with patience for words (Watjanak khamo)

(6) one who has true knowledge, know deep (Khampi runja Khatang Katta)

(7) one who does not lead to deterioration (Nojatthane Niyoshye).

2.2 the process of promoting the professional learning community consists of 4 processes:

1. supportive structure
2. creating a culture of learning (Learning cultures)
3. leader and agreement building
4. establishing an audit process

Component 3: The result can be presented as shown in Fig.2.
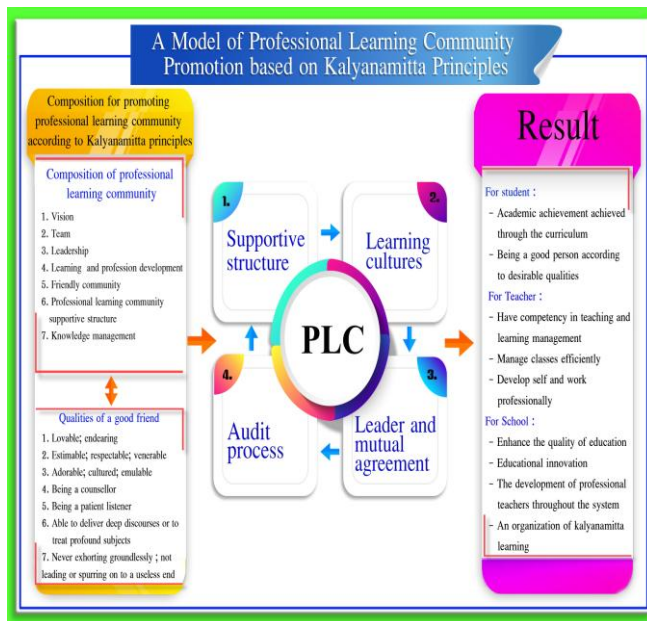
Fig. 2 The model of the school's professional learning community to expand educational opportunities Under the Office of the Primary Educational Service Area

V. DISCUSSIONS

The research on "A model of professional learning community promotion based on Kalyanamitta principles of opportunity expansion schools under Office of Primary Educational Service Area", the researcher brought important points to the discussion as follows.

The results of the research revealed that the professional learning community model according to the Kalyanamit principles of the school extends educational opportunities under the Primary Educational Service Area Office, consisting of 3 components: component 1, the leading part consists of 1.1) principles of the educational learning community. Profession, 1.2) Objectives of the professional learning community, and 1.3) Context of the professional learning community. Component 2: guidelines for the implementation are: 2.1) Composition for promoting the professional learning community according to the

Kalyanamit principle, there are 2 parts: 2.1.1 Composition of the professional learning community, 2.1.2 the Kalyanamit principle and 2.2 the process of promoting the professional learning community. Component 3: Effect of the theme it focuses on providing the school with educational opportunities that can be applied to drive the professional learning community in job development and professional development. by applying the principles of Kalyanamit and the composition of the professional learning community in which the researcher studies and analyzes the documents. Related research qualified interviews and focus group discussion ask those who are involved in the school, check the format Kalyanamit principle and composition of the Professional Learning Community are elements of promoting the professional learning community according to the Kalyanamit principle. It promotes each other to drive a process for promoting the professional learning community, which consists of 4 processes: 1) Supportive structure is the first process to prepare things, promote the action of the learning community in schools to expand, chance the highlight of this process is the introduction of components of professional learning communities with shared vision and community support structures to design the process. 2) Learning cultures are distinguished in the introduction of community elements. Professional learning, learning and professional development Controlling talking points stimulate questions There is a shared learning process through Share and Learn (Share and Learn) discussion and comment. Voting together best practice choices side as a team of unity shared leadership is fostered by defining the roles of each individual, interchangeably, and all members know their roles. Side is the Kalyanamit community where every teacher must know how to listen. 3) Leadership and agreement building is characterized by bringing together the elements of a professional learning community in the field of leadership. Have co-leadership take action in a variety of ways depending on how the managerial state will give teachers the opportunity to develop individual teacher's leadership. 4) The creation of the audit process has strength in bringing the elements of a professional learning community in knowledge management, taking place within the professional learning community and within each teacher, it is a validation of "what is it," "what is more," "is there more inspiration?" Use it or not and how to use it from the professional learning community. This is because every element of the model is related to the way of life in the work of the present day that teachers, executives and stakeholders work partly. Each person fulfills his duty along with schools expanding educational opportunities, there are differences in teaching and learning at many levels, both at the primary level. Primary and secondary levels teachers of various majors want a model of professional learning community action that is an effective

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professional development tool a clearer direction and approach, consistent with Gusmash Ade's research, found that the element of the professional learning community in elementary schools is the shared vision and values, collective learning, collaboration, sharing work methods and synergistically reflect structural factors. Social support factors supporting and promoting co-leadership [7] is related to Narongrit Intanam's research. It was found that the professional learning community components in schools were: Structure and support norming and shared values cooperation exposure to operational guidance conversations aimed at reflecting performance [8] are related to with Woralak Chukarte's research suggesting that the critical components of the professional learning community, the school context in Thailand with the approach to learning management are consistent with learning knowing in the 21st century consists of 6 areas, namely the Kalayanamit community according to the Thai way, resulting in trust and listening. leadership stimulates potential, creating the manifestation of transformational leaders. Faithful vision contributes to the power of the compass. An open, integrated system is geared towards the learners, creating the manifestation of ownership of the learning task. The professional learning team system to maturity and the spirituality of the teacher create a shared spirit for professional development [9], and a collaborative learning area based on real work, creating a learning culture for change based on real work as each area continues to evolve in this way, it becomes the normal way of the organization. He suggested that the approach to driving learning reform emphasizing the development of teacher professional quality by shifting the budget for teaching professional development through professional organizations with training as the main, turning to budget allocation to facilitate the creation of a professional learning community based on real work that teachers and schools [10].

VI. RECOMMENDATIONS

A. Recommendations for Practices

From the research results, it was found that current conditions and problems of professional learning community. Schools expand educational opportunities Under the Office of the Primary Educational Service Area Knowledge management. There is a need assessment result in the first order, it should be developed by the school director, and the Primary Educational Service Area Office defined as a qualitative indicator of teacher development promotion in training, development, and exchange of knowledge, or conducting professional learning communities.

B. Recommendations for Further Research

1. Should study strategies for community administration, professional learning according to Buddhist principles under the Office of the Education Area to enable the process of promoting the professional learning community to achieve its objectives effectively.

2. Should study paradigm adjustment of professional learning community according to Kalyanamitta principle of the school expanding educational opportunities under the Office of the Primary Education Service Area in order to create a systematic change for teachers, administrators, academic networks and management, and the results that happened to a sustainable corporate culture.

CONCLUSION

A professional learning community model based on the Kalyanamit principle is a tool for teacher spiritual development, aiming to work to develop the quality of the learner to be a good person according to desirable characteristics and have academic achievement achieved through the curriculum effectively.

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Lesson Learned - The Quality of Life Development and Income Enhancement for The Local Community Project from The Mission as a Higher Education Institute for Local Development of Phranakhon Rajabhat University

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Abstract-This article aims to present the conceptual framework of the project implementation process and its result of the mission as a higher education institute for local development, Phranakhon Rajabhat University. This is a part of the quality of life development and income enhancement for the local community. The target of the project was farmers and small and micro-community enterprises (SMCE) in Bang Yai district, Nonthaburi, covering 4 sub-districts with 60 households. The methodology focused on building partnership networks and defining the common goals by analysis of the capital and capacity, in which involving problem-solving. Additionally, it also emphasized on finding solutions that leading to academic development via participatory process. This was to solve problems and support the ongoing implementation of the local community. The tools used in the project were group discussions, in-depth interviews, and workshops. The results of the project implementation were a plan for problem-solving and development projects of the local community. They consist of 1 megaproject and 10 sub-projects with substantial results. It also has to be consistent with the needs of the users and be applicable for further development in income enhancement for farmers in the future.

   Key words— *Local Development; Local Economy; Phranakhon Rajabhat University*

I. INTRODUCTION

   Phranakhon Rajabhat University has settled a new strategy called Phranakhon Rajabhat University for Local Development under the Royal Command for 20 years (2017 – 2036). This has been done by applying His Majesty King Rama 10's speech which is 'the problems and the needs of the local community must be acknowledged and analyzed to initiate new strategies for developing and adjusting to the local customs accordingly'. The driven strategy is designed into four areas; local development; producing and developing instructors; enhancing the quality of education; the development of the management system and connecting the concept of the engagement university and society. The objectives are to focusing on the development and support of suitable innovation, knowledge, and technology for the local area, as well as a learning process for enhancing and elevating cooperation networks according to the context of each university, faculty, or department[1]. For this, the integrated management principles have been applied to improve the area through the cooperation of the university and partnership networks towards goals and visions for joint development at the sub-districts, provinces, and country. Hence, to achieve these goals, the mission including research, teaching, academic services are integrated while fostering of art and culture with the actual situations in the local community. Besides, roles and processes of teaching are also accommodated to meet the need of society [2] by considering the benefits that the learners would practically

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apply into their lives and use them for further development of the country[3].

Phranakhon Rajabhat University has adopted the Educational Royal Policy of being an educational institute for local development by implementing the 20-year local development strategy of Rajabhat University (2017 – 2036). There are 4 areas of responsibility consisting of Northern Bangkok, Nonthaburi province, Chai Badan Phiphat College in Lopburi province and Nakhon Nayok province, to drive the strategy of Rajabhat University for local development based on mutual knowledge and understanding [4]. Since Phranakhon Rajabhat University is a higher education institute which is a source of knowledge and experiences of researchers and scholars with expertise in various disciplines, we, thus, can integrally coordinate to achieve the connecting system. This is to improve and strengthen entrepreneurship, as well as to create awareness of environmental protection and various facilities based on the needs of the community. Also, it is to establish a direction of development in a continuous process and to build an integrated work with all sectors for encouraging the local community to cope with changes and to be sustainably self-sufficient.

For the implementation of the quality of life development and income enhancement for the local community project, the team had determined the target area to be Bang Yai district. The problem condition was discussed and analyzed *via* two joint meetings between instructors of the General Management Program, Faculty of Management Science, and the sheriff of Bang Yai district. The sheriff described the situation and the context of the development direction of the Bang Yai administrative region, which is one of the districts in Nonthaburi province with a large population which has gained rapid prosperity. In the past, most of the area was agricultural land (in 2009, a total of 29,215 rai was agricultural area). However, as the boom from Bangkok has continuously expanded to Bang Yai and Bang Bua Thong, more than 200 housing estates were built. Private companies and several government agencies also moved to the area, causing the land price to be significantly skyrocketing. The economic growth is the main factor of the expansion of urbanization by scattering invading into natural and agricultural areas. This has caused permanent loss of fertile lands, which are lands of food production and water reservoirs. Therefore, Bang Yai presently has only 19,000 rai of agricultural land remaining.

From the issue above, the governmental chief in charge of Bang Yai region development has reviewed and formulated plans to encourage the protection, conservation and preservation of the remaining farmland. The area has been preserved to be a source of quality and safe food for people while maintaining the green space for the city. The ways for halting urban sprawl have been concisely planned and properly managed to create an environmentally friendly city with a balance between urban development and sustainable resources [5]. Moreover, the solution to stop the further invasion into the remaining farmlands has been constructed by changing attitudes of farmers by guiding them to realise the importance of their farms as quality food sources for societies. This is significantly relevant to all elements of urban development in physical, economics, income, health, environment, and property management, which enable to enhance their income appropriately.

The research concerning of the current situation in Bang Yai district and the sheriff's interviews suggested the proposal to strengthen the economy, promote local wisdom, generate income, support each other and improve management capability for encouraging farmers to be self-reliant and developing a strong economy in the community. The goal is to raise the quality of life of farmers for achieving sustainable development under the Sufficiency Economy Philosophy. The strengthening of community agriculture and society as a foundation for building the potential food security in the area has been prepared by balancing between the production process on a potential basis and the tenacity of the community. To prioritize to the stability of the community economy, the production has been focused on sufficient consumption within the district and developing a system for community agricultural enterprises in parallel with creating new entrepreneurs. In order to achieve this, knowledge of management and marketing by implementing digital commerce has been utilized.

Therefore, the General Management Program, Phranakhon Rajabhat University has proposed 'the Quality of Life Development and Income Enhancement for The Local Community Project' to commercially benefit the development of farmer community, which expectedly lead to building on the new generation of entrepreneurs. This aims to be the major motive in supporting knowledge in management, production skill, distribution channels, the development of digital commerce. The other goal is to create awareness of community farmers to realize the importance of their assets as a quality source of food production for local society. Moreover, they are the key figures in preventing urban sprawl that invades the remaining agricultural areas of Bang Yai district to preserve quality food source and conserve the green space of the society. This would not only increase economic growth at the community level but also sustain their environment.

II. RESEARCH OBJECTIVE

To present the conceptual framework, operation process, and the results of 'the Quality of Life Development and Income Enhancement for The Local Community Project'

III. RESEARCH SCOPE

Scope of contents: study the concept of Sufficiency Economy Philosophy, local economy development, goals of sustainable development, methodologies and activities for developing the quality of life and enhancing income for local community, building a working network for improving the quality of life in the community, and effective management

Area of population: the target groups for this project are 60 households of community farmers and community enterprises in Bang Yai district, Nonthaburi province. *Duration*: December 2019 – August 2020

IV. LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

In 2019, member states of the United Nations (UN) adopted the Sustainable Development Goals (SDGs) to be achieved by 2030. The SDGs is a collection of 17 interlinked global goals with 169 targets covering three critical issues of sustainable development; the economic, social and environment. The ultimate goals are ending poverty, reducing disparity by Leave No One Behind, combating climate change, and encouraging the participation of all countries, all stakeholders, and all people to driving sustainable development. The SDGs addresses the significant balance in three dimensions. Thailand has had its development framework for achieving sustainable development, which is the Sufficiency Economy Philosophy. It is based on intellect, virtue, the middle line of life, rationale and providence according to the concept of King Bhumibol Adulyadej. Similar to the SDGs, the main focus of the Sufficiency Economy Philosophy is sustainability.

Universal Development is a development process that every country must achieve together. Even developed countries such as countries in Scandinavia still have faced challenges in some issues. As suggested by data from SDG index 2016, these countries show a relatively good level in the economic and social aspects. However, the environmental issue, especially in **Goal 12**; Responsible Consumption and Production, remains challenging. In addition, all countries will be globally affected by climate change, the most problematic environmental issue of humanity. Cooperation is hence inevitable. Locally-focused development means that to achieve the SDGs, the development has to be done at the local level like rural areas or cities. This is because each area has distinct conditions, contexts, capital, needs and challenges. The local development by encouraging and empowering stakeholders to take leading roles is therefore critical to accomplish the SDGs. This is to realise the problems and find solutions which are corresponding to each area by considering the SDGs as the target and the indicator for interlinking experiences of each area [6].

A. The Twelfth National Economic and Social Development Plan (2017-2021)

As of lately, Thai society has progressed in many ways. However, the attempt to solve social disparity and justice have been relatively slow, especially in the income inequality issue. Therefore, the development for the coming phase needs to focus on reducing the income inequality between people with different socioeconomic status. The plan also has to tackle poverty and increase the accessibility to basic welfares from the public sectors. Moreover, the community capacity and local economy have to be strengthened for gaining more economic share and being self-reliant. The important approach is to increase the opportunity to 40% of the population with the lowest income to have career and access to quality welfares. The community capacity, local economy, and microfinance can be reinforced according to The Sufficiency Economy Philosophy. It will allow people to have rights in land and resource management in their community. Thus, the significant development for this coming five years is to advance competitive capacity for production and service. The improvement needs to emphasize value chain connection among agriculture, industry, service, trading, and investment. The competitive capability of the country must be elevated by upraising agricultural and food production to the standards.

B. The Development of Local Economy

The development of the local economy is one of the significant goals under government policy. Inequality issue in Thailand is a consequence of the past development plans on several issues such as income, educational opportunity, employment, occupational security, accommodation, the use of land, public health, drugs, life and property safety, and family [7]. The building of a potential community economy by reducing disparity, developing human capability, and increasing competitiveness of the country, will lead to income and happiness enhancement [8]. The community will then become economically self-reliant and sustainable, especially in development that benefits numbers of people in the community. Community economic development is a holistic viewpoint of economic strength factor, which means it is an economic measurement to all community capitals [9]. Community capitals consist of; 1) Financial capital such as Saving for Production Group (SPG), poverty reduction fund, and village and urban community fund; 2) Natural capital such as soil and water fertility and natural tourist attractions; 3) Social capital, for example, communities and organizations, skill and proficiency in production and management, et al. for strengthening community sustainability [10].

The literature review above has led to the conceptual framework of the project with the ultimate goal to create a driven mechanism to achieve the SDGs, local economic development, and strategies of Phranakhon Rajabhat University. The project management is defined by focusing on a building and developing an integrated network for local development[11]. The integrated network in the implementation consists of the sheriff Bang Yai district, the chief of Bang Yai District Agricultural Extension Office, community leader, private sectors and the National Bureau of Agricultural Commodity and Food Standards (ACFS). The team is responsible for designing activities, determining and developing cooperation in management network, supervising and monitoring the responded area to be effective (by improving the quality of life and enhancing income in the local community) [12]. The activities comprise of; action leading to problem resolution and action for the development in the target group. The implementation of this project has three expectations for improving the quality of life and enhancing the income for the local community; 1) Forming partnership networks from multiple sectors; 2) Collecting body of knowledge as a community capital; 3) Developing supportive tools for income enhancement for the local community. The conceptual framework can be summarized as shown in **Fig.1**
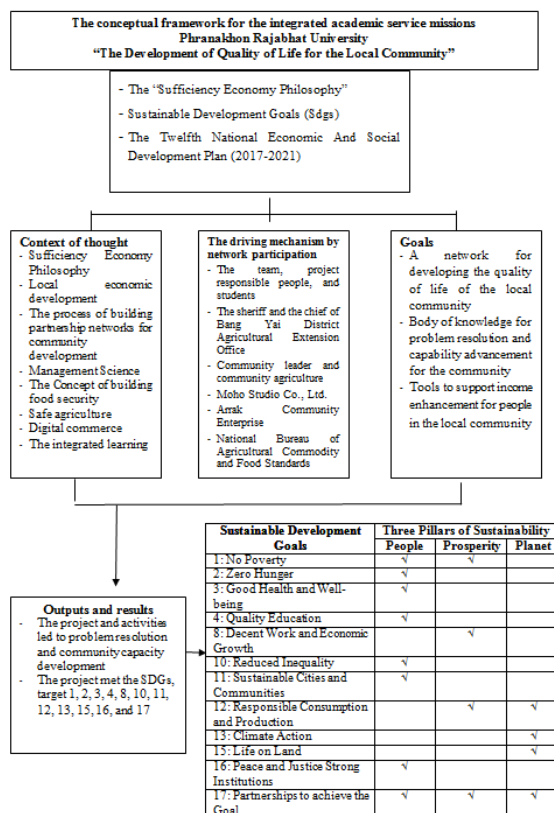
Fig.1 The conceptual framework

C. Implementation methodology

The project team designed the implementation process as follows;

1) Develop the project proposal – problems and needs for development were researched by meeting and interviewing the sheriff to discuss contexts, conditions, issues, and demands for the local development; The local facilities and agencies were also introduced for effectively supporting the project.

2) Determine and develop the cooperation of the partnership networks for implementing – the responsible team synthesized two activities for the community; 1) activity for problem resolution of the community; 2) activity for further development in the target group. These would indicate the particular knowledge required for the implementation, following by finding the relevant agencies with expertise. Then we proceeded to coordinate with partnership networks by informing principles, objectives, process, and the goals. The project received cooperation from 5 agencies.

3)

Fig.2 Development of cooperation with partnership networks

4) Integrate the common goals with the partnership networks by participating in the capital and potential analysis – the existing capital of the partnership networks is generally linked to problem solving and approaches for development by academic science. The study was conducted by a participatory process that leads to problem resolution

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and support to strengthen community implementation. The essential information was from agricultural extension office, which was used as the basis for ten target groups covering four sub-districts. All target groups willingly participated in the implementation.

Fig.3 Interview with the key informants

5) Coordinate with Bang Yai district agricultural extension office for fieldwork appointment – the instructors, students and the partnership networks then visited the community for conducting inquiries, surveying, observing and constructing a workshop. The ideas were shared and analyzed for the feasibility of working with all ten target groups and using them as information for activity design. The issues related to the learning were assigned into four subjects which are human relations in organization, the seminar on management problems, social marketing, and preparation for professional experience general management. Using academic science through a participatory process would lead to problem and need solving of the community. Besides, this method would be integrated with the expertise which is the original capital of the area.

Fig.4 Photos of fieldwork activities

6) Promote the results of the implementation to be concrete – the lesson was summarized into the knowledge

and innovative arisen from a driven working process with five partnership networks and ten community networks. Then the information and results were given back to the community for productive use. The staffs were the main mechanism to advocate knowledge and integrate the community service project into the learning courses. The area was also set to be the learning workshop between instructors and students. The implementation of the project is concluded in **Fig.5**
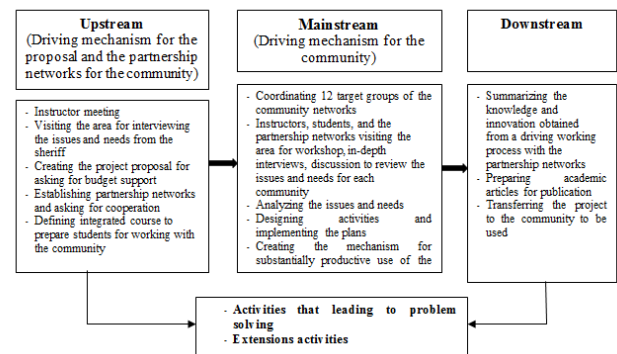
Fig.5 the implementation process of the project

V. RESULTS

The project methodology presented above resulted in concrete implementation. The results were analyzed to obtain the knowledge and innovation derived from working with the partnership networks (five agencies and ten community networks). The obtained lesson was transferred to the community to be used as follows;

1. According to the successful project, it was found that the cooperation networks was an important mechanism in the project to enhance the quality of life and income to the community. They consisted of five agencies: Phranakhon Rajabhat University, Bang Yai District Agricultural Office, National Bureau Agricultural Commodity and Food Standards (ACFS), Moho Studio Co., Ltd. and Arrak community enterprise.

2. The implementation results were consistent with the needs of the community. The lesson, therefore, could be practically applied to the area and the learning courses to improve the quality of life and enhance the income of the community. The outcome of the community service project was also in agreement with the user demands and led to several project initiations. There are one mega-project and

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ten sub-projects for problem-solving and community development covering four sub-districts. Sub-projects consist of: 1) Agro-tourism Development Project; 2) Brand Image and Public Relation Channels Development Project for the Community Rice Mills; 3) Channel of Distribution Development Oroject for Bueng Bua Products by Khun Loong Prasit; 4) Public Relations Project for Chemical-free Rice at New Theory Agricultural Learning Centers; 5) Project for Promoting the Local Ggriculture with Environmentally Friendly Consciousness by Young Generation; 6) Project for Development of Online Marketing and Brand Image of Healthy Fruits and Vegetables from Community Farmers; 7) Large Scale of Rice Field Knowledge Embodiment and Dissemination Project; 8) Project for Public Relations Media Creation for Maliwan Farm; 9) Public Relations Media Creation for Four-region Kitchen Project; 10) 'Life Like Rice' Project for Organic Rice.

3. A set of knowledge in a learning process and its design by participation in sustainable local community development prepared students to serve society. The learning process in the King's Philosophy on Sufficiency Economy also shaped students to live their lives properly. It also motivated three attributes of being a student, an innovative contributor and a good citizen as specified in the announcement of the Ministry of Education on National Education Standards 2018.

4. The implementation met twelve direct and indirect goals of the SDGs. It comprehensively covered all social, economic and environmental dimensions including **Goal 1**: No Poverty; **Goal 2**: Zero Hunger; **Goal 3**: Good Health and Well-being; **Goal 4**: Quality Education; **Goal 8**: Decent Work and Economic Growth; **Goal 10**: Reduced Inequality; **Goal 11**: Sustainable Cities and Communities; **Goal 12**: Responsible Consumption and Production; **Goal 13**: Climate Action; **Goal 15**: Life on Land; **Goal 16**: Peace and Justice Strong Institutions; **Goal 17**: Partnerships to achieve the Goal. The project also achieved the goals to develop the local economy and strategies of Phranakhon Rajabhat University.

Fig.6. Examples of the implementation results

VI. CONCLUSION

Phranakhon Rajabhat University adopted the Educational Royal Policy for being an education institution for local development. We proceeded the implementation by following the 20-year strategies of Rajabhat University for local development (2017 – 2036) in all four criteria. The strategies were driven by mutual knowledge and the actual needs of the community. The development was in an integrated work with all sectors in the direction of a continuous process in order to encourage the local

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communities to be sustainable self-reliant and enable to cope with changes. This article is a lesson learned from the project implementation of the mission on being a higher education institution for local development. The study consists of the conceptual framework, the implementation process, and the results. The team members found six important factors that led the project to success, which are:

1) The explicit conceptual framework enabled the team members to work towards the same goals. This project exploited the Sufficiency Economy Philosophy as a working compass. There were processes of critical thinking, identifying problems, searching resolutions throughout the operation.

2) The personnel in the project are knowledgeable, capable and enthusiastic in their work. They have the responsibility and dedication to achieve the goals. They also learned and shared several experiences during the project.

3) The cooperation obtained from the partnership networks with expertise caused interdependence between groups. This also resulted in long-term interaction.

4) Determining the common goals and being open-minded to opinions from the partnership networks enhanced the capability to obtain useful guidelines for the project.

5) Encouragement, empowerment, and listen to the target groups helped the implementation to meet the goals.

6) Effective communication and coordination

VII. ACKNOWLEDGEMENT

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Local Finance and Rural People's Quality of Life[*]

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Abstract— This study aims to explore local finance and the quality of life of people sub-district municipalities and sub-district administrative organizations (SAOs) in the Lower Northeastern Provincial Cluster 2 of Thailand. The study uses the quantitative techniques and data from the Department of Local Administration collected in 2017-2019. This study evaluates the per capita local revenues and spending in three-year panel data including scrutinizes four local public services that involve with quality of life, namely education, infrastructure, and disaster prevention and emergency medical services(EMS). The study's results indicate that revenue received from all sources increased annually for both types of local administrative organizations. The revenues collected by the LAOs was the lowest source of revenue, while grants from the central government was the highest revenue. The per-capita revenues from all sources of SAOs stayed lower than the revenues of sub-district municipalities. However, both local organizations reported higher expenditures on personnel. Each year, the overall expenditures climbed, except investment that went down. Furthermore, this study finds that people residing in areas under the jurisdiction of SAOs had a lower quality of life than those in sub-distract municipalities, including in terms of education, infrastructure, and disaster prevention and mitigation. Both administrative jurisdictions had insufficient emergency medical supports, with over 70 percent in need of ambulances. Finally, this study also finds that people living in areas under the jurisdiction of SAOs showed the least satisfaction with infrastructure and emergency medical services(EMS) respectively.

Index Terms— Local finance, Quality of life, Local Government

I. INTRODUCTION

In every country the government's ultimate development goal is to improve the quality of life of its people. Countries have people residing in rural and urban parts, with each group experiencing a different quality of life. According to Bloom, Craig and Malaney[1], rural people's quality of life in Asian countries is lower than the quality of life of those living in urban areas. The lower quality of life in rural parts is more easily witnessed when a larger proportion of the population is rural.

To improve people's quality of life, collaboration among various state sectors is necessary. The state's principal role is to ensure the equity and efficiency of those services. In terms of equity, population dispersion and inadequate infrastructure are common challenges. Education, public health, and other services do not attract as much private investment in rural parts due to an expectation that these investments will be less profitable. If we expect equitable access to social services for rural dwellers, the government must deliver public services to all. When it comes to efficiency, proactive action by the state is required for some public services that are merit goods. Education and public health, for example, benefit the whole of society. Education is associated with increases in production and income as the better-educated are expected to contribute more towards the country's economic growth. The government's investment in these areas will result in cheaper services for its people and, subsequently, increase their accessibility. Therefore, their accessibility means efficiency of public service provision.

Decentralization to local administrative organizations (LAOs) implies the transfer of authority from the central government to local jurisdictions. The fundamental concept of decentralization is to allow local authorities to deliver public services that suit local contexts and needs. These providers know best about local problems and have better access to data Local authorities play are consequently regarded as better service providers. Simultaneously, local people have more opportunities to take part in resource management and make intervention in case of unmet needs.

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Broadly, the provision of public services by local organizations and by central government has the same objective, which is uplifting the quality of life of population. Public services, therefore, are a significant determinant of local people's quality of life. Infrastructure plays a significant role in improving rural people's quality of life [1]. Infrastructure has two categories, economic and social. The economic includes electricity, communication, roads and railways. The other refers to schools, universities, and health facilities [2]. Supported by other studies, Hourie, Malul and Bar-EI confirm that local expenditures on education greatly influences the good quality of life [3]. Other expenditures on public services, like public cleaning, recreation, waterworks and waste water treatment, matter to the quality of life as well.

The success of these public services depends largely on local finance. Cuadrado-Ballestero & et al [4] argue that financial health is associated with the provision of social welfare. A decline in local financial health usually means a local jurisdiction has failed to provide public services. Consequently, the quality and number of services offered lessens over time, which can have a negative impact on quality of life. Several studies reiterate the relationship between public service provision and people's quality of life. People living in well-financed municipalities usually achieve a better quality of life than those living in other districts. In Thailand, big disparities in local finance are a persistent problem. Studies on fiscal disparity find significant differences in the revenues of LAOs. They show the biggest disparities in the own-collected revenue and the grants and shared taxes it receives from the central government respectively. By comparing the revenue types between local authorities, we see that sub-district municipalities have the biggest disparity in revenues [5].

The Department of Local Administration has two broad visions as goal. First, is that "Local administrative organizations shall provide at least 70 percent of standard public services for people's good quality of life throughout the country by 2022" [6]. The Department's second goal is to improve quality of life while narrowing gaps between urban and rural areas. However, these have been challenging goals to achieve. Questions persist about how to make public services equally accessible to all areas, both quantitatively and qualitatively.

Thai local administrative organizations are divided into two levels: upper tier and lower tier. Provincial Administrative Organization belong to the upper tier, providing public services that the lower tier is unable to provide. Municipalities and sub-district administrative organizations belong to the lower tier. Municipalities provide public services to people in the urban areas of a district. Thai municipalities are divided into 3 types: metropolitan municipality, municipality, sub-district municipality. These types are determined by Municipal Act, B.E.2496 which designates types based on the size and density of the population, the size of the economy, and the political and local potential of the area. Sub-district Administrative Organizations take responsibilities for rural areas outside the municipalities.

This study aims to find out to what extent local finance and rural people's quality of life are related using four quality of life indicators, namely education, emergency medical services, infrastructure and disaster mitigation. In fact, these indicators are part of each LAOs' duties as assigned by the Plans and Process of Decentralization of Local Administrative Organization Act, B.E. 2542. The study site is the Lower Northeastern Provincial Cluster 2 covering Ubon Ratchathani, Si Sa Ket, Yasothorn and Amnad Charoen.

II. RESEARCH OBJECTIVES

2.1 To explore the link between local finance and the quality of life of people in under the jurisdiction of local administrative organizations

2.2 To propose recommendations on improving sources of revenue for the quality of life of people.

III. RESEARCH METHODS

This project primarily used quantitative methods, to analyze local finance, budget allocation and public service delivery administered by 455 LAOs in the Lower Northeastern Provincial Cluster 2. Of this number, 99 sub-district municipalities and 356 sub-district administrative organizations (SAOs) are part of this study. The study looked at data on revenues and expenditures of LAOs in 2017-2019 and data on infrastructure, public health and disaster prevention and mitigation from Department of Local Administration, as well as data on the Ordinary National Educational Test (O-NET) in 2019 from the Office of the Education Council. Data on satisfaction with public services delivered by LAOs was collected in February 2020 through a questionnaire distributed to people in the four provinces that are part of this study. In total, 1,356 persons responded including 510 residents in municipalities and 846 in areas under the jurisdiction of SAOs.

IV. RESULTS

In 2017-2019, revenues from all sources of SAOs and sub-district municipalities grew annually. The own-collected revenues constitute the lowest percentage,

about 5 percent of total revenue (2 percent for SAOs and 4 percent for sub-district municipalities). Grants from the central government, were the largest source of revenue, about 50 percent for both organizations, (50 percent for SAOs and 48 percent for sub-district municipalities). Comparing by organization, SAOs earn less in revenue per capita from all sources less than sub-district municipalities. Table 1 shows that SAOs earned twice as much in own-collected revenue than sub-district municipalities (approximately 124 baht per head and 327 baht per head respectively). 6,057 baht per head is the average revenue earned among SAOs whereas municipalities earn 7,108 baht per head. However, sub-district municipalities receive more grants from the central government than SAOs.

Table 1 Comparison of SAOs and sub-district municipalities by revenue, in 2017-2019

Unit: Baht per

Type of local administrative organization	Type of revenue	2017	2018	2019	Total in 3 years
Sub-district administrative organization		N=356	N=356	N=356	N=1068
	Own-source	115.6	123.7	133.9	124.4
	Shared tax	2621.4	2905.0	3008.6	2845.0
	Grant	2986.9	3042.0	3236.2	3088.4
	Total	5723.9	6070.8	6378.7	6057.8
Sub-district municipality		N=99	N=99	N=99	N=297
	Own-source	304.9	321.1	356.4	327.4
	Shared tax	3082.2	3388.0	3467.8	3312.7
	Grant	3369.6	3417.0	3617.3	3468.0
	Total	6756.7	7126.1	7441.5	7108.1

Sub-district municipalities receive their own-source revenues, 128 baht per head on average, mainly from taxes. For SAOs, most own-source revenues come from levies on public utilities and trade that contribute the average revenue of 60 baht per head. In Table 2, we see that SAOs earn own-source revenue less than sub-district municipalities per head from all sources.

Table 2 Comparison of own-source revenues of SAOs and sub-district municipalities, in 2017-2019

Unit: Baht per capita

Type of local administrative organization	Year	Own-source revenue				
		Fee, fine and license	Tax	Miscellaneous	Asset	Local utility service and commerce
Sub-district administrative organization	2017	18.1	28.5	18.9	29.0	54.7
	2018	21.8	32.2	16.5	32.0	58.1
	2019	22.6	35.0	14.1	32.9	68.2
	Total	20.8	31.9	16.5	31.5	60.4
Sub-district municipality	2017	51.6	121.1	28.8	50.6	86.8
	2018	54.9	127.5	27.3	61.6	81.3
	2019	65.4	137.9	30.8	62.9	99.1
	Total	57.3	128.9	29.0	59.0	88.9

The highest expenditure of both organization is personnel, constituting 35 percent of total expenditure. Only 8 percent represents investment. The average investment per capita of both are almost the same, 453 baht per head for SAOs and 462 baht per head for sub-district municipalities. An interesting finding is that the two organizations paid less on investment year on year. Overall, the expenditure per head of SAOs is 5,191 baht, which is lower than the 6,257 baht per head of municipalities (See Table 3).

Table 3 Comparison of expenditures of SAOs and sub-district municipalities in 2017-2019

Unit: Baht per head

Type of LAOs		Year	Contingency fund	Grant	Operating	Personnel	Investment	Total
SAOs	N=356	2017	1418.8	380.7	941.2	1721.6	465.9	4930.7
		2018	1533.6	413.8	969.6	1813.9	453.0	5188.9
		2019	1667.7	408.0	1027.7	1905.9	441.8	5453.7
	N=1068	Total	1540.2	400.8	979.6	1813.9	453.6	5191.3
Sub-district municipalities	N=99	2017	1563.8	382.0	1399.2	2214.1	491.9	6052.9
		2018	1655.2	396.9	1405.9	2315.1	487.7	6263.1
		2019	1803.7	397.0	1501.2	2399.6	408.4	6511.6
	N=297	Total	1674.2	392.0	1435.4	2309.6	462.7	6275.9
Total	N=1365		1569.2	398.9	1078.5	1921.4	455.6	5426.8

The Gini coefficient represents fiscal disparities. The coefficient of own-source revenue is 0.43, representing the biggest disparity, followed by 0.14 for shared-tax (See Table 4).

Table 4 Gini coefficient of revenues of LAOs in 2017-2019

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		Gini	Std. Err.	t	P>t	[95% Conf.	Interval]
Own-source	N=1365	0.43	0.01	34.89	0.00	0.41	0.46
Shared tax	N=1365	0.14	0.00	37.66	0.00	0.13	0.14
Grant	N=1365	0.08	0.00	22.72	0.00	0.08	0.09
Average revenue	N=1365	0.09	0.00	26.25	0.00	0.09	0.10

With regards to public service delivery by LAOs, there are 17 primary schools under LAOs in all four provinces. Among them, 12 schools are under sub-district municipalities and five are SAO schools [7]. However, two schools do not have any Grade 6 students (Nam Pleek Municipal Kindergarten School and Buntharik Municipal School) and so analysis of O-NET scores in 2019 Academic Year is feasible in only 15 schools [8]. Table 5 shows that students from schools under SAOs receive lower scores on every subject, particularly mathematic and English, and lower than those from municipal areas. The highest-scored subject of students from both jurisdictions is Thai language.

Table 5 O-NET scores of Grade 6 students by subject and type of LAO in 2019

Type of local administrative organization	N	Thai language	English	Math	Science	Average score
Sub-district administrative organization	10	41.6	27.7	29.1	30.9	129.3
Sub-district municipality	5	41.4	25.1	24.3	30.6	121.4

Table 6 shows the proportion of unpaved, asphalted and concrete roads. Within the jurisdiction of SAOs, unpaved roads make 36 percent of all road types whereas unpaved roads in municipal districts make up 25 percent. As for municipalities, concrete roads make up the highest share, accounting for 58 percent of all road types.

Table 6 Percentage of unpaved, asphalted and concrete roads by type of LAO in 2019

	Sub-district municipality		SAO	
Type of road	Number of road	Percent	Number of road	Percent
	N=99		N=356	
Unpaved road	2893	25.1	13452	36.2
Asphalted road	508	4.4	1912	5.1
Concrete road	6767	58.7	17883	48.2
Others	1347	11.6	3841	10.3
Total	11515	100	37088	100

With respect to the medically equipped ambulance for emergency medical services, less than 70 percent of both organizations lack their own ambulances (See Table 7).

Table 7 Number of ambulances of LAOs by type of LAO in 2019

	Sub-district municipality		SAO	
Number of ambulance	Number	Percent	Number	Percent
0	72	72.7	261	73.3
1 car	27	27.9	94	26.4
2 cars			1	0.2
Total	99	100	356	100

Disasters can have a devastating impact on local people's quality life. In order to protect their livelihoods and property, LAOs are obliged to prepare manpower and equipment for emergency situations. Preparation of rescue work in this study encompasses machines, vehicles and staff for preventing and mitigating disasters. A worrisome finding is that more than 70 percent of SAOs do not have at fire truck, 10,000-ltr water truck, water pump (3-5 inch and 5-10 inch) or rescue car (See Table 8). This is in stark contrast from sub-district municipalities where all of these necessities are prepared.

Table 8 Percentage of vehicles, staff and machines for disaster prevention and mitigation by type of LAO in 2019

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Item	Sub-district municipality Number N=99	Percent	SAO Number N=356	Percent
1.Firefighter				
0	27	27.2	199	55.8
1-2 persons	18	18.1	69	19.3
3-5 persons	29	29.2	64	17.9
More than 5 persons	25	25.2	24	6.7
Total		100		100
2. Fire truck				
0	53	53.5	290	81.4
1-2 trucks	43	43.4	65	18.2
3-5 trucks	3	3.1	1	0.2
More than 5 trucks				
Total		100		100
3. Water truck (under 10,000 liter)				
0	23	23.2	134	37.6
1-2 trucks	75	75.7	222	62.3
3-5 trucks	1	1.1		
More than 5 trucks				
Total		100		100
4. Water truck (over 10,000 liter)				
0	70	70.7	325	91.2
1-2 trucks	29	29.3	31	8.7
3-5 trucks				
More than 5 trucks				
Total		100		100
5. Water pump (3 - 5 inch)				
0	68	68.6	296	83.1
1-2 pumps	27	27.2	36	10.1
3-5 pumps	3	3.0	7	1.9
More than 5 pumps	1	1.0	17	4.7
Total		100		100
6. Water pump (5-10 inch)				
0	92	92.9	334	93.8
1-2 pumps	5	5.05	9	2.5
3-5 pumps	1	1.0	6	1.6
More than 5 pumps	1	1.0	7	1.9
Total		100		100
7. Rescue car				
0	76	76.7	264	74.1
1-2 cars	23	23.2	92	25.8
3-5 cars				0
More than 5 cars				
Total		100		100

Table 9 shows the findings of the questionnaire. The questionnaire asked 1,356 people about their satisfaction with public service provision. 846 respondents live in a SAO area and 510 in a municipal area. In SAO areas, people express the least satisfaction with infrastructure and emergency medical services respectively.

Table 9 Satisfaction of people in municipal and SAO areas with public services

Item	Municipality N=510 Satisfied (%)	Dissatisfied (%)	SAO N=846 Satisfied (%)	Dissatisfied (%)
1. Child development center under LAO (average)	**87.36**	**9.34**	**88.74**	**4.08**
1.1 Appropriate number of teachers	83.1	12	85.3	4.8
1.2 Sufficient food and milk for children	88	9	89.3	2.9
1.3 Age-appropriateness for center admission	91	6	91.9	2.6
1.4 Sufficient and appropriate teaching media and building for child development	87.5	9.7	85.5	6.6
1.5 Proper development of children at child development center	87.2	10	91.7	3.5
2. School under LAO (average)	**85.76**	**10.74**	**90.3**	**6.4**
2.1 Appropriate number of teachers	87.6	8.3	92	3.8
2.2 Up-to-date curriculum	82.6	12.8	85.8	9.1
2.3 Appropriate learning environment	87.1	10.5	89.6	7.4
2.4 Quality education	84.3	12.2	93.4	4.5
2.5 Children have learning abilities	87.2	9.9	90.7	7.2
3. Infrastructure (average)	**80.26**	**18.98**	**76.92**	**22.44**
3.1 Enough concrete roads for local needs	79.6	19.7	69.9	29.3
3.2 Good-conditioned concrete roads for driving	73.2	26.3	63.1	36.5
3.3 Convenient travel and less time consumption	80.6	18.7	76.6	22.8
3.4 Enough tap water for consumption	78.8	20.5	85	14.1
3.5 Enough electricity	89.1	9.7	90	9.5
4. Disaster prevention and mitigation (average)	**82.83**	**16.13**	**79.48**	**18.18**
4.1 LAO makes rapid termination of incident	81.8	17.3	75.8	21
4.2 LAO is equipped with tools and equipment for disasters such as fire, flood, etc.	80.8	17.6	74.1	22.5
4.3 You feel safe when living in this community	84.9	14.5	83.9	15.7
5. Emergency medical service (average)	**78.9**	**17.46**	**75.3**	**19.56**
5.1 Tools and equipment are sufficiently prepared	79.4	16.7	74.1	20.7
5.2 Rapid service	77.8	19.2	74.5	22.1
5.3 Service delivered to all areas	79.5	16.5	77.3	15.9

V. Discussions

This part summarizes key findings. First, LAOs have three types of revenue, namely own-source revenue, shared-tax and grant. Calculations of per-head revenue shows that the own-collected revenue is the smallest source of revenue, accounting for just 5 percent of total revenue. The largest revenue comes from grants and makes up 50 percent of total revenue. Overall, revenues from all sources of both sub-district municipalities and SAOs are on the rise. Nevertheless, SAOs earn own-source revenues per capita less twice than sub-district municipalities. Sub-district municipalities rely more grants more than SAOs. Second, expenditures for both organizations include a contingency fund, grant budget, personnel and investment. Both LAO types spend most on personnel, four times greater than investment that constitutes 8 percent of total expenditure. The three years studied suggest a fall of investment expenditures paid by both organizations. This tendency points towards limited local development. Between the two organizations' per capita expenditures of SAOs in terms of contingency, operating and personnel costs is less than sub-district municipalities. Third, analysis of four types of public service shows five significant findings when it comes to education, heath, infrastructure, disaster management and satisfaction from constituents. In terms of education, O-NET scores of Grade 6 students suggests that the quality of education is higher in municipalities than SAO areas. In

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terms of public health and emergency medical services, 70 percent of both organizations report not having ambulances. In terms of infrastructure, findings tell us that most roads in areas of both organizations are made of concrete, though. In municipal areas, unpaved roads account for 25 percent of roads, while SAOs they account for 36 percent. In terms of disaster mitigation, we see a preparedness. Over 70 percent of SAOs do not have a fire truck, a 10,000-liter water truck, 3-5 inch and 5-10 inch water pumps or a rescue vehicle. This is in stark contrast to sub-district municipalities, where vehicles and machines are ready for disaster relief. In terms of the reported satisfaction from local constituents in municipalities are generally more satisfied with these services more than people in SAO areas.

VI. RECOMMENDATIONS

The aforementioned findings indicate that people obtain various standards of public services depending of the type of LAO. In order to provide them the same minimum standard, grant allocation should be revised first. The reason behind this is that grants are the most effective mechanism for reducing fiscal disparities between richer and poorer localities. It is also the major source of revenue for all LAOs. When revising grant allocation, policymakers should consider how local factors in their grant allocation. According to the allocation formula for grant based on duties for municipalities, 50 percent of grants are tied with the size of the organization's population and 50 percent is allocated equally across all. For SAOs, 40 percent of grants is also tied with the number of population and 60 percent allocated to all equally. Because of this formula, people receive diverse standards of public services. For municipalities, their smaller size positively influence public service delivery, especially in the area of infrastructure and disaster mitigation. Additionally, municipalities are more urban and thus can earn a lot more from locally-levied revenues. SAOs, on the other hand, have jurisdiction over areas that produce lower revenues. Generally, their annual investment budgets are small due to low own-source revenues and grants.

Furthermore, the general grant should be made available for local investment or development according to assigned duties and population needs. The growing revenues in 2017-2019 among LAOs has not resulted in more revenues for local development as well as autonomy of spending. The grants allocated to them are generally specific activities and grounded on the basis of certain entitlements. Therefore, these grants are restricted to projects like old-age allowance scheme, supplementary food (milk) for school children, and such. It is impossible to use money from grants on other projects. This study views that relevant organizations should have greater discretionary power over these grants instead. By doing this, the general grant will give greater fiscal autonomy to LAOs to serve local needs.

CONCLUSION

The core findings of this study is that local finance varies significantly by type of LAO in the region. Sub-district municipalities earn more revenue per head than SAOs, allowing municipalities to plan more extensive budgets. Grants are the primary source of revenues for LAOs and considered an extra revenue source. Sub-district municipalities rely more on grants more SAOs. Furthermore, there is a relationship between limited local development and expenditure budget. Merely 8 percent of total expenditure is spent on investment which is on a declining trend year on year. Both LAO types utilize most of their budgets on personnel and operation. These expenditures do not generate developmental benefits in comparison with investment. Finally, people from both jurisdictions experience different public service deliveries. In municipal areas, residents obtain better public services than those in areas of SAOs. This evidence can be seen from: the higher O-NET scores; the higher percentage of concrete roads than other road types, and the higher numbers of firefighters, fire trucks, water trucks, water pumps and rescue vehicles for disaster prevention and mitigation. Furthermore, the study also shows that the people living in municipalities are more satisfied with public services. People in municipalities are content infrastructure, disaster prevention and mitigation, and emergency medical service.

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Abstract— The purpose of this research was to propose a model of Buddhist participatory education management of charity school in Buddhist temples. The research design was mixed methods research and three steps of research was divided. Step 1: Study the condition of participatory education management. Questionnaires was used for 400 administrators and teachers, data were analyzed by descriptive statistics which were frequency, percentage, mean and standard deviation. Step 2 Develop the model by interview 10 key informants, and Step 3 proposing the model by conducting focus group discussion with 9 experts, data were analyzed using content analysis. Results showed that Buddhist participatory education management of charity schools in Buddhist temples was the implementation of the principles of education administration in a participatory manner with Buddhist principles such as Sangkhahavatthu IV such as giving polite speech and services. Consistency, the model has four main components consisted of principles, objectives, administrative processes, and evaluation. It was appropriate and feasibility to apply in the educational administration of the temple charity school in Buddhism.

*Index Terms— **Model, Participatory Education Management, Charity Schools, Buddhist Temples***

I. INTRODUCTION

The temple charity school in Buddhism is the same teaching and learning as ordinary schools. It emphasizes the purpose of enhancing the knowledge and understanding of the principles that lead to directing and controlling the body, speech and mind to follow the moral principles and conduct the Buddhist activities properly, and having a good lifestyle behavior according to the moral, ethical and cultural framework, do not persecute oneself and others, have a charity in the public mind to benefit oneself and society, have good leadership and follower characteristics. It is in line with state policy for good citizenship in a democratic society with a monarchy [1].The charity school of the temple is supported by the Sangha in accordance with the policy of promoting the temple and the monks to play a role in providing education for the community to the full. The Ministry of Education provides special support and subsidies to the school because it is a model school of education for people who cannot be self-sufficient or unattended or disadvantaged [2].

Educational administration that takes into account the participation of people, communities, organizations or various institutions. In society, it has become more when indicators of public participation have been established as one of the criteria for the external quality assessment of educational institutions and the establishment of educational administration policies of educational agencies. At both policy level and practice level, it was found that the participation of teachers, education personnel and the public. It is an important mechanism for decentralization of management to educational districts and basic schools including participation in thinking, collaboration, support, and participation in monitoring the outcome of education management at all levels both policy level / central education area level and school level successful teaching and learning management of teachers in the good teacher scholarship programs and education. The success of most educational institutions is due to the participation of the people[3] which is a participatory management between school communities and temples of all three must be involved in supporting education and driving the administration of the educational institution towards important goals which is the expectation of parents and society. Therefore, the temple should play a role in the administration and management of the community education. The charity school is located in the temple and has a abbot as well as the board of directors as the managementfrom the research results it was found that the

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school and the community must consist of communityparticipation. Coordinating houses, temples, schools are three together in a sustainable manner. It is caused by the mind wanting to participate in a particular activity in order to influence the needs of a group of people that are consistent with their social lifestyle. However, in order for the community to truly participate organizing activities for participation must take into account lifestyle, values and traditions. Person's attitude in order to create voluntary participation in activities because people in the community are different in their personal characteristics, economic characteristics and receiving information about the participation of the community. It should be analyzed synthesize community problems and have appropriate planning and lifestyle, set activities conducting activities and evaluating activities establish procedures for inclusion and focus, using the community as the centerthrough schools, government agencies, provide ongoing assistance, advice or facilitation [4].

In which not all work can be accomplished by one person requires cooperation and mutual cooperation, therefore working together by using the Sangkhahavatthu IV principle to participate which is a principle that binds the spirit of people and unites the people to have unity, consisting of 1) Dana, giving to share, 2) Piyavaja, speaks lovingly, 3)Attajariya, attitude to benefit each other, 4) Samanattata,impartiality[5].If the Sangkhahavatthu IV principle is integrated with the participatory educational management, it will be able to solve the problem very well. The researcher is interested in studying the Buddhist participatory education management model of the Buddhist temple charity school in Buddhism. It is to study the cooperation of the students' parents, the cooperation process of the students and integrate the principles of Buddhism with the administration of educational cooperation which will be beneficial in the administration of education in the charity school of the temple in Buddhism.

II. Research Objectives

The purpose of this research was to propose a model of Buddhist participatory education management of charity school in Buddhist temples.

III. Research Methods

Mixed methods research was used for research design and three steps of research was divided as follows:

Step 1: Study the condition of participatory education managementof the temple charity school in Buddhism by studying the document on the administration of a participatory education in the Buddhist temple charity school, to be used to create a questionnaire to collect data from the population in this research were 400 administrators and teachers of the Buddhist temple charity school in the central region, and the entire population was used as a sample in the research. The data were analyzed by descriptive statistics which were percentage, mean and standard deviation.

Step2:Develop a Buddhist participatory educational management model of the Buddhist temple charity school in Buddhism. It is a qualitative research by studying the documents related to the development of a Buddhist participatory educational administration model of the Buddhist temple charity school in Buddhism. It was then used to create questions for interviewing 10 key informants and analyzing the data through content analysis.

Step 3: Propose the Buddhist participatory educational management model of the Buddhist temple charity school in Buddhism. It is a qualitative research by organizing focus group discussion with 9 experts to determine the suitability of the model and the experts who participated in the group discussion were selected using purposive sampling considering with qualifications and knowledge of competency development, or those who have knowledge about the propagation of Buddhism and perform data analysis with content analysis.

IV. RESULTS

Buddhist participatory education management model of the Buddhist temple charity school in Buddhism. It is the introduction of the principles of education administration in a participatory manner with the Buddhist principles, namely SangkhahawatthuIV principles, namely, giving,polite speech, giving service, and consistency. The model has four main components: 1) Principle, 2) Objectives, 3) Administrative process, consisted of 3.1) Cooperative education management. It is a participatory management in education management, which means the administration that allows those involved in education management to participate in thinking, making decisions, and planning to work together to work in 4 areas, joint operation, joint recognition of the benefits, and joint evaluation. 3. 2) Buddhist participatory education management, it is the integration of the Sangkhahavatthu IV principles into the 4 aspects of educational administration, namely, academic administration, personnel management, budget management, and general administration, and 4) Evaluation is a model evaluation process with a summary to verify and evaluate the achievement of development as in Fig. 1.

Fig. 1 Model of Buddhist Participatory Education Management of Charity Schools in Buddhist Temples

The results of the presentation of the Buddhist participatory educational management model of the Buddhist temple charity school in Buddhism, fromfocus group discussion with 9 experts, it was found that it was appropriate and feasibility to apply in the educational administration of the temple charity school in Buddhism.

V. DISCUSSIONS

This researchfound important points to be discussed and follows the Buddhist participatory education administration model of the Buddhist temple charity school in Buddhism. It is the introduction of the principles of education administration in a participatory manner with the Buddhist principles, namely SangkhahawatthuIV principles, namely, giving, polite speech, giving service, and consistency. The format has four main components: principles, objectives, administrative processes, and evaluation. The results of this research are based on four principles of participatory management, namely, co-thinking and decision-making, joint operation, joint recognition of the benefits, and joint evaluation. It is a very important principle in the administration of the temple charity school in Buddhism.

Because it is a school with a context that requires participation from all sectors, namely, the private sector, the ecclesiastical sector, the community sector, in line with the advocacy of the constitution that resulted in the National Education Act, B.E.2562. According to the Act, it provides opportunities for all sectors of society to provide education (All for Education) to schools with individuals, families, communities, community organizations, local government organizations,private organizations, professional organizations, religious institutions, establishments and other social institutions. Promote the strength of the community by organize a learning process within the community, so that thecommunity has education and training management seeking knowledge, information, and being selective various wisdom and science to develop the community in accordance with the situation and needs including finding ways to encourage the exchange of development experiences among communities for schools to develop effective teaching and learning processes [6].

It was also found that it was consistent with the research of ParanadattaSaenviseth that the research found the community participation consists of 1) participation in thinking and making decisions, 2) participation in support and co-operation, 3) participation in control and the process of school, 4) participation in receiving services and receiving assistance from the school [7] is related to the research of PhatthaphonPuysuwan that research results show that the components of participation in education management of the parent and teacher associations suitable for Thai society consist of 1) the creation of network partners, 2) the organizational climate, 3) the relationship between the school and the community, 4) the participation of members, 5) evaluation, 6) support [8].

Consistent with the research of PrachuapNooliang, the research found that the management of a participatory education should include 1) co-thinking, 2) co-planning, 3) co-operation, 4) co-operation, 5) co-evaluation and 6) participation in benefits [9] and related to Nucha Sasom's research that the research results showed the characteristics of participation in the administration of houses, temples, schools consisted of 1) participation in decision making, 2) participation in operational planning, 3) participation in implementation and implementation belief and belief in Buddhism, 4) participation in coordination, 5) participation in the monitoring and evaluation of the Kalyanamit [10].

It is consistent with the research of Sakda Sathapornvajana that the research results showed the model of the participatory administration of the basic educational institutions consisted of 1) the principle of the participatory management, 2) the participatory management system, 3) the guideline for the implementation of the model, there were 4 steps: preparation implementation of the pattern evaluation of the implementation of the pattern, 4) the conditions of the participatory management model consisted of two parts, the first part was being the factors affecting the success of the model, and the factors affecting the use of the model, Part 2 was the source of factors, which consisted of 3 sources: school administrators, co-workers and stakeholders.2) The results of the evaluation of the participatory management model of the basic education institutions by the school administrators [11].

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The results of the presentation of the Buddhist participatory education management model of the Buddhist temple charity school in Buddhism. It is appropriate and feasibility to apply in the educational administration of the temple charity school in Buddhism. It is because of the Buddhist participatory educational management model of the Buddhist temple charity school in Buddhism. The results of this research are the process of developing a complete model in accordance with the 3-step pattern development principle, namely step 1, the study of current conditions by studying the document and then analyzing the data through content analysis. The questionnaire was used by 400 teachers and administrators and analyzed the data by statistics such as frequency, percentage, mean and standard deviation presented in the form of a table with a description. Step 2. Development of the model by studying documents, analyzing data with content analysis and interviewed 10 key informants. The research tool was interview form, and step 3, the proposal of the model by focus group discussion of 9 experts. The research tool was a questionfor focus group discussion, and perform data analysis with content analysis. This is related toThawatchaiRattananu said that model development is a process of creating or developing a model contains the study of related knowledge model sketching and to investigate the suitability and feasibility of or to experiment with the model [12].

VI. RECOMMENDATIONS

A. Recommendations for Practices

Government Sector, Office of the Private Education Commission and related agencies, the work should be carried out as follows:

1) This research should be applied for effective administration of Buddhist participatory education in Buddhist temple charity schools in Buddhism.

2) This research should be applied and developed as a manual for the Buddhist participatory education management model of the Buddhist temple charity school in Buddhism.

3) A Buddhist temple charity school in Buddhism should be organized to have a cooperative agreement to build a network for the administration of Buddhist participatory education of the Buddhist temple charity school in Buddhism.

B. Recommendations for Further Research

1. The Buddhist temple charity school and related agencies, the Buddhist participatory educational management model of the Buddhist temple charity school in Buddhism should be applied to benefit the administration of the Buddhist temple charity school in Buddhism.

2. The Buddhist temple charity school and related agencies should be placed on the implementation of the Buddhist participatory education management model of the Buddhist temple charity school in Buddhism in the management of education, meaning the administration that allows stakeholders to participate with the education management to participate in thinking together, making decisions, participating in planning, and working together, thus creating a feeling of attachment, commitment and mutual agreement in the administration of the educational institution with participation including 1) co-thinking, decision making, consultation on operations, 2) joint implementation to drive directions and clear operational plans, 3) joint benefit recognition and recognition of the benefits of the implementation of knowledge, 4) joint implementation and evaluation of implementation. It is important to support learners' learning.

CONCLUSION

Research paper on Buddhist participatory educational management patterns of Buddhist temple charity schools in Buddhism. It is a research that combines both quantitative research and qualitative research. It is the process of administering a Buddhist participatory education of the Buddhist temple charity school in Buddhism. It is the introduction of the principles of education administration in a participatory manner with the Buddhist principles, namely SangkhahavatthuIV principles, namely,giving, polite speech, giving service, and consistency. The format has four main components: principles, objectives, administrative processes, and evaluation. Body of knowledge from research can be summarizedthat PEB MODEL is a participatory educational management that integrates with Sangkhahavatthu IV principles to apply to educational administration as follows:

P = Participatory participation in education management, it is the management of participation in education management, meaning the administration that allows those involved in the education management to participate in thinking, making decisions, joining plans, working together, thus creating a feeling of attachment and commitment. They agreed to jointly manage the educational institution to achieve the objectives, consisting of 1) co-thinking and decision-making. It is a consultation in the operation. Personnel selection regulation take care of the environment, develophumanpotential coordination introducing new techniquescoordinate nearby schools to develop learners create a systematic work as a team build understanding of organizations to reduce conflicts and create happiness consultation to help decide with advisory committee members and participate in thinking, making

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decisions, and working together. 2) Joint operations, it is driven in a clear direction and plan of action, collaborative meeting on school development for the better teaching and learning development jointly propose problems and solutions, get information on all dimensions of action, inspect, raise morale create a good atmosphere Introduce new technology to apply the presentation of virtue to interpolate and do activities together to create warm and unity, create a new culture in the organization agree and delegate to implement the plan, follow the specified time frame until the goal is achieved. 3) Sharing benefits, it is to recognize the benefits of conducting education and presenting a project for consultation, expressing opinions on development, and recognizing the use of the annual budget. Development of student learning provide advice, knowledge, and adjust the same attitude and provide additional funds to operate, organize statements in order of necessity, mediate when there is a conflict in the budget check transparency, take care of common interests.4) Joint monitoring and evaluation, it is the operation to support the learning of the learners is important. From the audit to evaluate the performance to take care of educational interests' performance tracking collect statistical data, build unity in the school administration, recognize the assessment results and propose independent revisions, choose the appropriate assessment form Suggest help solve problems in the assessment and design test methods.

E = Educational Administration, it is the concept of the administration of the temple's charity school in Buddhism in 4 areas: 1) academic administration, 2) personnel administration, 3) budget administration, and 4) general administration.

B = Buddhism, Buddhism is the principle of Buddhism, namely Sangkhahavatthu IV, which is the principle that binds the spirit of people and unites the people to have unity which is integrated with the administration of a participatory education in 4 areas: 1) donation, which is generosity, selflessness, sharing, assistance with four factors or assets, as well as providing knowledge and understanding and arts.2) Saying in love with each other is to say good words, pleasant to hear, clarifying, suggesting things that are useful, rational, evidences, influencing in a good way, or showing empathy, encouragement, know how to speak for good understanding, unity and friendship, love, respect and support one another. 3) Behavior to benefit one anotherthat ishelping with physical strength and exerting themselves to assist in service activities as well as helping to solve problems and helping to improve and promote ethics, and 4) Samanattata took himself to heal, that was, to fit him, to set himself up consistently, to equality, to treat all people, not to take advantage and to be equal in happiness, join in the

happiness, join the suffering, join the awareness, join in solving the problems for the benefit of mutual happiness, as in Fig. 2.
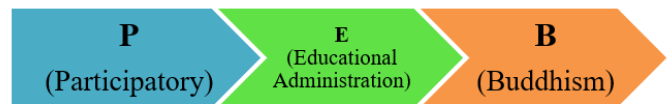
Fig.2PEB MODEL

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A Model of Participatory Academic Affairs Management based on Buddhadhamma of Phrapariyattidhamma Schools, General Education Division

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Abstract— The purposes of this research article were 1) to study the condition of participatory academic management, 2) to develop a model and to propose a participatory academic management model according to the Buddhist principles of Phrapariyattidhamma School, General Education Division. Mixed methods research was designed. There were 3 research steps: Step 1: Study the state of academic administration with participation. Use the sample questionnaire with 335 teachers. The data was analyzed by statistics, namely percentage, mean and standard deviation. Step 2 Develop the model by interviewing 14 key informants, and step 3, propose a participatory academic management model by collecting with a focus group discussion of 9 experts. The study found that 1) Academic management with participation in overall was at a high level in all 5 areas: the development of the quality assurance system within educational institutions, academic planning educational supervision, Teaching and learning management, and evaluation of learning outcomes in educational institutions, and research to improve the quality of education in educational institutions. 2) Model development, it is the introduction of Buddhist principles, namely, Sappurisatham VII, Sutta III, Four Noble Truths, Brahmavihara Dhammas IV and Iddhipada Dhamma, to integrate with the 5 aspects of participatory academic management. 3) A participatory academic work management model according to Buddhist principles of Phrapariyattidhamma School, general education division consisted of 1) principles, 2) objectives, 3) administrative processes, 4) evaluation. It is appropriate to apply for the participatory academic management of Phrapariyattidhamma School, General Education Division. Body of knowledge from this research can be summarized as ADEBE MODEL.

Index Terms— *Model, Participatory Academic Affairs Management, Buddhadhamma, Phrapariyattidhamma Schools*

I. INTRODUCTION

The provision of ecclesiastical education is an option where a certain group of youth is interested and parents are encouraged to make this choice, sothat children can study in the temple which the study of Dhamma Department of General Education. It is a form of study of the Sanghawhich is an education place that is free from immorality and drugs. This type of education management nets hope to provide education for the youth of the nation who are under study age but lack the educational opportunity to be thoroughly educated. In which the temple will organize the address, food, cloth, tri-robe for the students. Most of the students will stay in the temple and in a situation where there are still a large number of children and young people who are still missing opportunities or disadvantaged in receiving educational services [1].

Educational management of Phrapariyattidhamma School Department of General Education has conducted teaching and learning for monks and novices only at the secondary level which is divided into 2 levels or is lower secondary education and high school. It is classified as a formal schoolas well as a typical public and private school model [2].The identity of Phrapariyattidhamma School of the general education department is the school to arrange for monks and novices to study additional subjects, namely Pali and Buddhism. According to the study curriculum Department of General Education and study the educational curriculum of the Sangha Department Pali as a basis for the study of Buddhism in the Scriptures and can be used as a missionary tool which is an important function of monks and novices as the heir of the successor of Buddhism as well. Therefore, it is considered that Phrapariyattidhamma School Department of General Educationproviding teaching and learning according to the core curriculum of basic education, B.E.2551, or the study of Dhamma, Dhamma and Pali department as well by

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organizing teaching and learning according to the Dharma and Pali curriculum in accordance with Sangha policy[3]. Management of Dhamma Studies Department of General Education overall, they faced problems in school education management and does not meet the standard. Therefore, there are many problems such as school administrators lack of knowledge and understanding and skills in the management of the system, lack of work plan. There are no strategies, goals and principles. Teachers have qualifications that do not match the subject matter taught and lack the knowledge and expertise in teaching and learning, curriculum development material production, developing into a school of learning, human resource development, overall internal quality assessment evaluation. There were differences in educational quality in terms of fundamentals of administrators, teachers, learners and quality of factors both internal and external environment School administration process Along with changing social, economic, school groups, the quality of education is even more different, each school is not up to the standard by the office for accreditation and quality assessment that has been established.

Therefore, administrators are of great importance to the academic administration that improves the quality of the school for efficiency and effectiveness. Management performance is an indicator of management success. The fact that administrators have an understanding of the role and function of educational administration will facilitate the successful management of education [5]. Method plan determination and steps in operating systematically because if the school administration system is not good, it will affect other areas of work in school. A good manager must choose a method that is appropriate and effective in order to accomplish its intended objectives[6].

By applying the Buddhist principles of administration as an attempt to apply the principles of Buddhism to modern subjects, Buddhism is an abstract higher than modern knowledge. It is therefore able to control both science and social science entirely. Then, the organization is stable and we can't stop there. It needs to be changed over time, called organizational development and can do both mundane and moral. For secular development, there are several possible approaches such as reengineering, human resource development or knowledge management, but for the development of a fair organization (Buddhist organization development) is the use of principles as a tool for organizational development. The variables that will be developed are the main components of the organization. When secular development is combined with natural development naturally makes that organization. A peace organization is a learning organization that have the ability to manage themselves and maintain the balance of the environment and is an organization with a spirit or community consciousness [7].

Therefore, the management of the Buddhist principles as a directive in the administration of all aspects is a harmonization. The concept of social ethics fits into function [8] shows that academic management problems are very important to the efficiency and effectiveness of the school. In addition, the academic administration of the educational institutes must rely on the administration of the school administrators as a priority. Department of General Education by adopting the principles of Buddhism that administrators can integrate into solving problems in academic administration within schools especially the Buddhist principles which are consistent with the principles of academic administration and the principles are suitable for academic administration.From the background and importance of the problem, the researcher was interested in conducting research on a participatory academic management model according to the Buddhist principles of Phrapariyattidhamma School Department of General Education. This will benefit the administrators, teachers, educational institutes and agencies related to educational institutes to be able to apply the principles of Buddhism in the educational establishment.

II. RESEARCH OBJECTIVES

The objectives of this research article were 1) to study the condition of participatory academic management, and 2) to develop a model and to propose a participatory academic management model according to the Buddhist principles of Phrapariyattidhamma School, General Education Division.

III. RESEARCH METHODS

Mixed methods research was designed and there were 3 research steps as follows:

Step 1: Study the condition of academic administration with participation of Phrapariyattidhamma School, Department of General Education by studying documents on academic management with participation in order to create questionnaires. Data were collected from the population used in this research, namely 407 teachers in the Phra Pariyatidhamma School, General Department, totaling 2,259 people [9]. The samples were selected by opening the sample size table of Krejcie, R. V. & Morgan, D. W. [10]. The sample size of 335 sampleswere obtained. The sampling of each school district was carried out proportionally. The data were analyzed by descriptive statistics consisted of percentage, mean and standard deviation.

Step 2: Development of a participatory academic management model according to Buddhist principles of PhrapariyattidhammaSchool Department of General Education. It is a qualitative research by studying documents related to the principle of participatory academic management and Buddhist principles used to support and

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interviewed 14 key informants and analyzed the data through content analysis.

Step 3: Propose a participatory academic management model according to the Buddhist principles of Phrapariyattidhamma School, Department of General Education. It is a qualitative research by organizing focus group discussionwith experts to determine the suitability of the model by the experts who participated in focus group discussion, and 9 experts were selected according to purposive sampling with knowledge about participatory academic management from those who have knowledge of Buddhism or have knowledge of Phrapariyattidhamma School Department of General Education.

IV. RESULTS

1. Condition of Academic Management with participation of Phrapariyattidhamma School, the general education department as a whole has a high level of practice. When considering each of the 5 aspects, it was found that the level of practice was at a high level, all of which were the development of the quality assurance system within educational institutions, academic planning, educational supervision, teaching and learning managementand evaluation of learning outcomes in educational institutions, and research to improve the quality of education in educational institutions.

2. Development of a participatory academic management model according to Buddhist principles of Phrapariyattidhamma School Department of General Education. It is the implementation of 5 Buddhist principles, namely Sapphurisadham VII, SutthamIII, Four Noble Truth, BrahmawihanIV, and Iddhipada IV, to integrate with the 5 aspects of participatory academic management.

3. A participatory academic work management model according to Buddhist principles of Phrapariyattidhamma School, the general education department has 4 components: 1) Principle, 2) Objectives, 3) Administrative process is academic administration with participation and academic management with participation according to Buddhist principles. It consists of academic planning with Sappurisadham VII principles, teaching and learning management, and evaluation measurement with theSatdhamIII, research for the development of educational quality in educational institutions with the four noble truths, educational supervision and Brahmawihan IV principles of the system development. Quality assurance within educational institutions with the principle of Iddhipada IV, and, 4) Evaluation which is the evaluation by stakeholders such as monks, parents, community and comparative evaluation before and after the model is used as in Fig. 1.
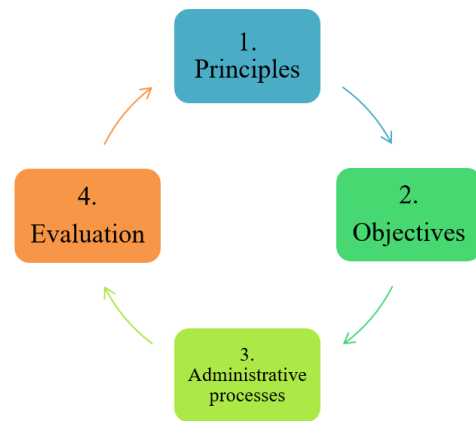
Fig. 1 A Model of participatory academic management model according to the Buddhist principles of Phrapariyattidhamma School, General Education Division

There were results to propose a participatory academic management model according to the Buddhist principles of Phrapariyattidhamma School. The general education department found that it was appropriate and feasible to adopt a participatory academic management model according to the Buddhist principles of PhrapariyattidhammaSchool. Department of General Education can be applied in educational institutions.

V. DISCUSSIONS

This research found important points to be discussed as follows:

1. Condition of Academic Management with participation in Phrapariyattidhamma School the five general education departments are: 1) academic planning, 2) teaching and learning management and measurement, evaluation of learning outcomes in educational institutions, 3) research to improve educational quality in educational institutions, 4) Education supervision, and 5) development of quality assurance system within educational institutions. Overall, the operating conditions were at a high level.When considering the aspects from the areas with the highest performance ranking, it was found that the development of the quality assurance system within educational institutions. It has the first level of performance in academic planning and has the second highest level of practice in education supervision the level of practice was ranked the 3rd in the teaching and learning management and the evaluation of learning outcomes in educational institutions. Ranked fourth in the practice level for research to improve educational quality in educational institutions Has a performance level of rank 5, which is consistent with PriyawongAnutarot has proposed the idea

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that academic planning is very important and useful to educational institutions, helping to see problems and find a way to cure the fever from the beginning. Academic planning is essential to the performance of an academic institution, in advance of the future activities by studying information and facts to help workers be able to anticipate and prepare for solving problems and obstacles that arise. They can develop the school in the specified direction and can remain effective in society and administrators should have planning skills and be responsible for planning academic work at all levels by organizing meetings to discuss or listen to teachers' opinions in order to properly manage the planning, [11] and in accordance with Uthai Bunprasert mentioned the importance of academic work, academic work is the main work, the biggest work of the system, the work at the heart of the school and has a curriculum. This is the most important part of academic work to meet and support academic work for quality productivity [12].

2. Development of a participatory academic management model according to Buddhist principles of Phrapariyattidhamma School Department of General Education. It is a participatory academic management by integrating 5 Buddhist principles, namely, Sappurisatham 7, Sutta 3, Four Noble Truth, Brahmavihan 4, and Iddhipada IV with the 5 aspects of participatory academic management: 1) Academic planning, 2) Teaching and learning management and evaluation of learning management results, 3) Research to improve educational quality in educational institutions, 4) Educational supervision, 5) Development of the health insurance system within educational institutions which it is a research process resulting from document analysis related to academic management methods.Participation principles and Buddhist principles that are appropriate to integrate with academic administration including interviews with 14 key informants who are knowledgeable about this research until being able to develop into a form that are suitable as well. It is a model that goes through a qualitative research process such as document synthesis and interviewing key informants. The five principles are appropriate to apply to education especially the Four Noble Truths. This is consistent with the research of RungchatchadapornWehachat said that it is necessary to pay attention and develop one's potential to have knowledge and understanding and research capabilities to achieve policy success and lead to a more effective institutional mission. Research for the development of educational quality is based on the Four Noble Truths as a tool to promote the educational quality development process as well as the Four Noble Truthprinciple is a great truth consisting of 1) suffering problems that must be solved, 2) The cause of the aforementioned problems, 3) problem solving or goal, objective solution, and 4)method or means to solve problems. Executives can use these principles as a

guide for their own development. Teacherdevelopment develops learners and improve the quality of educational institutions [13].

3. Development model for academic administration with participatory Buddhist principles of Phrapariyattidhamma School Department of General Education, it is a model development through document synthesis and interviews with 14 experts, then drafted a model for developing a participatory academic management model according to the Buddhist principles of Phra Pariyatidhamma School. The General Education Department consists of 4 components, component 1) principle component, 2) objectives component, 3) administrative process component, and 4) assessment. The model was then examined by a discussion meeting with a group of 9 experts which results to check the model. It was found that it was appropriate and feasible to develop a participatory academic management model. Buddhist principles of Phrapariyattidhamma School Department of General Education, this is related to ThawatchaiRattananu said that model development is a process of creating or developing a model that contains the study of related knowledge drafting the model and investigating the feasibility and feasibility of the model [14].

VI. RECOMMENDATIONS

A. Recommendations for Practices

Government Sector, Ministry of Education and school administrators the following actions should be taken:

1) The results of the research report should be improved in order to plan the research implementation for the development of education in educational institutions.

2) There should be a clear supervision plan through the supervisory committee appointed as well as head of the learning topic.

3) It should set up a policy and clear guidelines for academic administration that can be put into practice for concrete development.

4)There should be a policy to encourage teachers to manage a variety of teaching and learning as well as a variety of evaluation results that are based on the real situation of the learners.

B. Recommendations for Further Research

1. School administrators and special appreciation should be given to teachers with research results for outstanding educational development as well as organizing workshops for teachers to have knowledge and understanding in research for the development of educational quality.

2. School Administrators, there should be a document to educate teachers about teaching supervision. Materials, equipment, budget, morale and morale are supported for supervisors and supervisors. In addition, there should be a summary of the results of internal instructional supervision every semester.

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3. School Administrators should be directed follow up on the ongoing and regular implementation of academic projects as planned.

4. School administrators, there should be a continuous meeting to clarify the results of the educational quality assurance to teachers, parents and the community. Data from the quality assessment results are used to improve and develop the quality assurance system within the school as well as providing facilities for the flexible and efficient development of the internal quality assurance system.

5. School Administrators Should support and promote the organization of workshops for teachers on the organization of teaching and learning activities with emphasis on critical thinking, synthetic thinking, critical thinking, creativity, thoughtfulness and have a vision tooling media technology in teaching and learning research to improve educational qualityassurance within educational institutions in order for teachers to apply the knowledge gained in organizing activities related to the quality development of educational institutions as well as preparing a manual for measuring and evaluating learning management in educational institutions.

CONCLUSION

A research paper on a participatory academic management model according to Buddhist principles of Phrapariyattidhamma School, Department of General Education, it is mixed methods research that combines both quantitative research and qualitative research. It is a participatory academic management by integrating 5 Buddhist principles, namely, SappurisadhamVII, SutdhamIII, Four Noble Truth, Brahmawihan IV, and Iddhipada IVwith the 5 aspects of participatory academic management: 1) Academic Planning, 2) Teaching and Learning Management and Evaluation of Learning Management Results, 3) Research for Educational Quality Development in Educational Institutions, 4) Educational Supervision, and 5) Development of an internal health insurance system. The model has 4 components: 1) Principle, 2) Objectives, 3) Administrative process, and 4) Evaluation. The summary of the knowledge from this research is that ADEBE MODEL that is an academic service that is the heart of the quality development of educational institutions. Developing teachers and learners use the principles of community and social participation and the introduction of 5 Buddhist principles into the integration of the academic administration will help promote the efficiency and sustainable effectiveness of the 5 academic administration by ADEBE MODEL as described below.

A = Administration is the academic administration in which the administrators manage the academic work according to the planned systematic plan. The principle of Buddhism is applied which is the Sapphurisadhamma VII, which is a principle that can greatly cover academic

planning in which management must have a vision Policy to comply with government policy. The school condition was analyzed by SWOT. There were clear goals and policies in terms of quality and quantity. Administrators must have an assessment of the institution's job capability, including personnel, budget, materials, equipment and management system. Management must set a period of time for work in accordance with the plan. Therefore, management must have a systematic process of analysis and decision-making that defines a systematic approach and adjust it according to both internal and external situations or as an executive.

D = Development is the development of teaching and learning management and the measurement of learning performance that is the heart of academic administration. Executives must act effectively and efficiently in accordance with the government policy. And meet the expectations of teachers, learners, parents and the community, teaching and learning management, and learning performance measurement.It has applied Buddhism principles which are the 3 Dharma principles as a practice that will lead to success. Executives must always adhere to it on a regular basis, starting from themselves, being a person who adheres to ethics and is a good role model for education personnel, raising awareness for teachers and learners of their roles and responsibilities motivating teachers to act with an ideological commitment to teaching and learning and evaluating learners' learning outcomes. It also encourages teachers to develop diverse teaching skills and use modern teaching materials as well as judging the learning outcome of the learners according to the actual situation to develop educational institutions, personnel in teaching and learning management and evaluation of learning outcomes, resulting in students being of good quality.

E = Efficiency solution is an effective solution to problems through research to improve educational quality. There is a principle of Buddhism which is applied which is the Four Noble Truths, which the school administrators will manage to develop research and development of educational quality in that educational institution. Administrators must focus on the state of problems in researcher development or problems in promoting education personnel to acquire research skills at least set up problems or see problems as (suffering). In addition, administrators must also focus on studying the real causes of education that are the root causes of school problems that are connected to other problems in a comprehensive and straightforward manner (happiness). The root cause of the problem is known, one of the things management has to set clear goals in research area to meet the needs of most stakeholders or focus on solving problems in both the short and long term (nephrology) methods in research to improve the quality of education by searching for new methods to solve problems in a timely manner and

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to meet goals in order to benefit the administration of educational institutions.

B = Basis for success is a tool for success to achieve success in developing an educational quality assurance system within educational institutions is a very important workload in academic administration. It is an indication of the quality of the administrators, teachers, learners and educational institutes that they are very good. Therefore, the development of the quality assurance system in educational institutions with the principles of Buddhism that are applied which are the 4 virtues which can be regarded as the principles that lead to all success executives must have Chanta, Viriya, Chitta, and Vimangsa first.

Then, the administrators need to raise awareness of the educational institution personnel to be satisfied, and be willing and responsible for the development of an insurance system within the school encourage personnel to perform their assigned duties with determination, indomitable determination, management must regularly pay attention to, monitor, and advise personnel as well as having to study, analyze and consider insurance work in educational institutions to consider ways for continuous and sustainable development, and to lead the organization to the development of the quality assurance system within the school and the achievement of goals.

E = Equilibrium is the balance of educational supervision. It is very important to the quality of people and learners because educational supervision is a process to help teachers in all aspects whether it is teaching management. The performance of duties as assigned, help with media and teaching materials as well as the behavior or ethics of the teacher government. The principles of Buddhism that are applied are the four Brahma Vihara principles: mercy, compassion, empathy, and compassion must help and encourage the supervisor and the supervisor as well as management must rely on impartiality and use wisdom in consideration good management needs to balance the way people treat personnel according to the four Brahmavihara IV principles. There must be a balance between compassion and empathy, and use blandness in being neutral do not allow personnel to violate the rules of the work, that is, the kindness of the personnel is too much to spoil the rules of work or to adhere to the rules of work strictly alone kind without kindness to personnel. All of them will lose balance and result in damage. This is something that good management must not do, and to develop a balance in educational supervision in educational institutions as in Fig. 2.
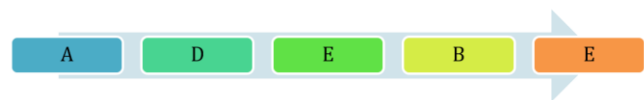
Fig.2 ADEBE MODEL

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Sufficiency Economy Philosophy: An Enabler for Zero Waste City

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Abstract—

Waste has become a critical problem in cities around the world. Each year, the world generates 2.01 billion tonnes of municipal solid waste, with at least 33 percent of that not managed in an environmentally safe manner. The currently consumption-driven lifestyle also produces a huge volume of waste each day threatening the world sustainability. Moreover, the ongoing depletion of natural finite resources is also leading the globe to an uncertain future. The purpose of this article is to study the zero-waste concept and the characteristics of zero waste city, to study the principles of sufficiency economy philosophy, and to review the role of sufficiency economy in waste reduction and how it contributes to zero waste city. Documentary study and literature review were used for data collection. The result showed that ineffective waste management including landfill and incineration can be one major cause of waste. Also, overconsumption can be another cause that exacerbates the current waste situation. A zero-waste strategy and the concept of zero waste city can contribute to waste prevention with its proactive-reduce, reuse, and recycle (3R)-principle and to the reduction of wastes sent to landfills and incinerators. Sufficiency Economy Philosophy can also contribute to waste reduction at the consumer side. With the zero-waste strategy and sufficiency economy philosophy, we can achieve waste and pollution reduction and preserve our environment, as well as create sustainability for the future generations.

Index Terms— *Zero Waste, Zero Waste City, Zero Waste Hierarchy, Overconsumption, Sufficiency Economy Philosophy*

I. INTRODUCTION

Humans are generating more and more waste on earth and the situation is exacerbated by our overconsumption behaviors. Although lots of people seem not to be bothered by the waste, it doesn't mean they can stay away from the problems of waste. Landfill sites can be a constant threat to the environment as they take up large pieces of land to exist; causing damage to ecosystems, they are a blot on the landscape in our natural surroundings, and they are one of the major causes of toxic contamination of soil. Burning waste in incinerators also produces hazardous air pollutants, such as carbon monoxide and PM 2.5.

In the zero-waste management concept, our current linear economy; take-make-use-dispose, can be identified as a major cause of the excessive amount of waste. To move towards the zero waste, our resources need to be managed in a way of preserving their value and energy in a circularity chain while our overconsumption behavior has to be changed in order to keep our planet away from excessive waste and toxic conditions. To make this happen, a waste preventive policy must be adopted to promote reduce, reuse, and rethink

practices, followed by increasing separation in the waste collection at source and quality recycling. Food waste needs to be reduced in the first place, and invested in composting as a means of managing organic waste without releasing methane to the atmosphere but enriching soil instead. E-waste also needs to be effectively managed through innovative reuse solutions and business models built to last. Significantly, overconsumption culture needs to be changed to ensure that we are not taking resources and wasting them over our planet capacity. Moreover, organic waste needs to be treated before landfilling in order to reduce the mass of organic waste in landfills and minimize the methane released to the air.

When successfully reducing the amount of waste sent to landfills and incinerators, cities will be able to implement the zero waste strategies faster and operate the zero waste practices at cheaper cost and in safer manner for the environment comparing to the traditional waste management. To stop the production of excessive waste and the uncontrolled climate change, cities need to replace their waste addictive behavior with sufficiency lifestyle.

Sufficiency Economy philosophy is a practical guideline for the traditional lifestyle of Thai society in which all aspects of life are interconnected because it allows peaceful coexistence of different things. Also, the Sufficiency Economy philosophy is a dynamic and systematic principle that can be integrated into economic, social, and environmental development. Thus, the Sufficiency Economy is able to steer the society away from crisis, and can be implemented as guidelines for development in order to keep up with rapid changes in the age of globalization.

II. ZERO WASTE

The definition of zero waste, according to Zero Waste International Alliance (ZWIA), is "Zero Waste: The conservation of all resources by means of responsible production, consumption, reuse, and recovery of products, packaging, and materials without burning and with no discharges to land, water, or air that threaten the environment or human health [1]." It is used as guiding principles of the Zero Waste Hierarchy to create a globally accessible framework for zero-waste practices. It includes both a goal and a plan of action. It aims to maximize resource recovery and minimize extraction of scarce natural resources by progressively reducing and ultimately ending waste disposal in incinerators and landfills while moving forward to waste reduction by refusing wasteful products and packaging, encouraging producers to take responsibility for their waste, and encouraging reuse and repair.

The Zero Waste Hierarchy describes a progression of policies and strategies to support the Zero Waste system, from highest and best to lowest use of materials [2]. It is designed to be applicable for all sectors including policy makers, industries, and individuals to change their mindset from waste management to resource management. It aims not only to promote safe waste disposal but also to ensure that the resource value is preserved in the economy for the future generations. Figure 1 illustrates the seven levels of zero waste hierarchy; two levels relating products and five levels relating waste. The first level is to stop waste from being produced by designing waste-free products and banning single-used items. The second level is to scale up the market for used items which still can function in order to preserve resource value and prevent them from being discarded as waste. The third level is moving into the waste area as it is the process of cleaning, repairing, and refurbishing the items that have been thrown away to make them become products again. The fourth level is the process of turning the separately collected waste into secondary raw materials by recycling, composting, and anaerobic digestion. The fifth, sixth, and seventh levels are the processes of extracting valuable materials from waste, managing residuals, and

rejecting policies and systems that encourage the destructive disposal of organics [3].
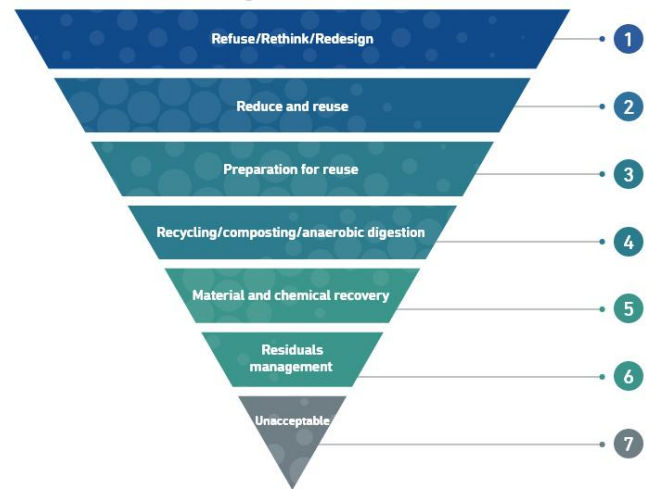
Figure 1. Zero Waste Hierarchy [4]

III. ZERO WASTE CITY

A zero waste approach emphasizes environmental stability by returning control over resource management and giving greater influence over the shape of the local economy to the community. Whether it's implemented through encouraging community composting, creating closed-loop systems by promoting reuse or by redesigning business models in the local production, zero waste helps create a flexible system that can be customized to the specific needs of the community. The positive benefits of this approach are that communities feel a sense of ownership, cohesion and pride over how their local area operates. In the future it is not only possible, but realistic for societies to design a circular system. Producers become consumers and consumers become producers. Disposable products and packaging will be replaced with reusable waste-free solutions, enabled by the shortening of supply chains. Local material flows become prioritised, and the community plays an active role in the management of resources to ensure they maintain the majority of the wealth that is generated by the new system. Through the growth of zero waste cities globally, we are beginning to see the benefits of it play out across all aspects of society, both for the environment and the people living in it, taking us one step closer each time to a zero-waste world.

The concept of "zero waste city" is gradually being accepted globally. 25 cities around the world are making significant steps towards zero waste including Vancouver, Bute, Dubai, Flanders, Gipuzkoa, Cappanori, Hout Bay, Guam, Cashel, Buenos Aires, New York City, San Francisco, Ljubljana, Kamikatsu, Santa Monica, Pune, Medimurje, Sardinia, Taiwan, Sweden, San Diego, Wales, Targu Lapus, Alaminos, and Auckland [5]. A zero waste city concept

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emphasizes on promoting green development methods and lifestyles, reducing the amount of waste, and strengthening the recycling activities as well as minimizing waste sent to landfills and reducing impact of solid waste on the environment. Constructing a zero waste city involves many fields of knowledge and takes numerous steps as well as requires cooperation from involving sectors including consumers in the city. It requires clean production in the industries, green economic development and green lifestyles in communities. As a result, the process requires a new model of cooperative participation from government agencies, companies, social organizations and the public.

Moving towards zero waste, a city needs to measure its performance of waste management system. Zero waste index is developed based on the evidenced-based research methodology and is analysed by measuring the performance of waste management systems in the cities of Adelaide, San Francisco and Stockholm. The performance of waste management systems is measured by the waste diversion rate. The zero waste index forecasts the amount of materials, energy, water and greenhouse gas emissions substituted by the resources that are recovered from waste streams. The zero waste index can evaluate the potential energy, greenhouse gas (GHG) and water savings due to resource recovery from municipal solid waste in each of the three cities. It is obvious that the zero waste index is used as an innovative tool for evaluating waste management performance and materials substitution which are done by waste management systems in different cities [6]. (figure 2)
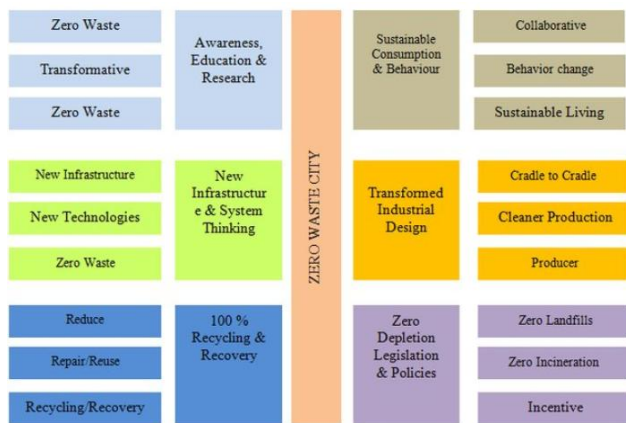
Figure 2. The Principles for Transforming the City into Zero Waste. [7]

Many Cities aim to eliminate waste disposal by 2050 by reducing waste generation and increasing diversion, reaching at least 70% diversion by 2030. Moving towards zero waste, cities must transform solid waste and material management systems to reach at least 70% diversion [8]. Cities can begin zero waste implementation by increasing rates of recycling and recovery of wet and dry materials, from plastics and metals to food and organic waste, by improving

waste separation at the collection sites. Cities that have better waste management system, the goal should include elimination of single-use items and non-recyclable materials, particularly plastics; and include higher rates of recovery and reuse of other materials such as fabrics, wood and potentially plastics. Slovenia, as an example of outstanding zero waste movement, is one of the cleanest and most environment-friendly countries, both in Europe and globally [9].

In Thailand, the National Solid Waste and Hazardous Waste Management Master Plan (2016 - 2021), has been issued by the Pollution Control Department (PCD) to be guidelines for local administration and related waste agencies to effectively manage garbage and waste and minimize their negative impacts on people's health [10]. As the waste disposal capacity is varied from agency to agency, they are allowed to choose a suitable method to dispose garbage for the amount ranging from no more than 15 tons a day to more than 700 tons a day and to decide on other factors such as location, environmental impact and community acceptance [11]. By studying experiences from other countries, Thailand hopes to launch its own law in banning single-use plastics in 2024 and aims to see all plastic waste returned to the manufacturing system -- the so-called zero-waste community -- in 2027 [12].

Plastic has become an important and integral part of Thai society due to its wide range of applications, such as packaging, agriculture, automobile parts, electronic applications and medical devices. Consequently, the amount of plastic waste is increasing every year due to the increase in plastic consumption caused by the increasing population. Plastic waste in Thailand basically comes from industrial processes and households and the amount keeps increasing, which consequently results in the problem of waste management. Additionally, the leakage of plastic waste into the ocean is another disruptive factor in Thailand's waste management. Therefore, the 3R concept; reduce, reuse, and recycle, have to be applied to minimize the impacts of plastic waste [13].

Through the National 3R Strategy and the National Master Plan (2016-2021), Thailand can ensure the proper waste management. Furthermore, several approaches were included in the "2017-2021 Plastic Debris Management Plan to promote the effectiveness of waste management such as introduction and promotion of eco-packaging design, implementation of the 3Rs (reduce–reuse–recycle) strategy for plastic debris management, the development of material flow for plastic containers and packaging inventory, and the promotion of education for relevant stakeholders in the field of plastics and its alternative materials. Besides, waste management legislation and law revision are implemented to improve the efficiency of plastic waste management, for example, imposing plastic bag fees, strengthening the 3Rs

measures, and promoting circular economy in plastic value chains [14].

Under the concept of zero waste, the 3R strategy—Reduce, Reuse, and Recycle, can be applied to the Thai petrochemical industry at the factory level in order to manage industrial plastic waste in a sustainable way. The 3R strategy, if fully implemented, could reduce the amount of landfill waste by over 20% of the amount produced. As a result, the disposal costs and consumption of natural resources could be reduced as well [15].

IV. WHAT BENEFITS CAN A CITY GAIN FROM GOING ZERO WASTE?

Due to the limited availability of natural resources, especially non-renewable resources, zero waste approach has been adopted by cities around the world with the aim to eliminate waste and its toxic materials while saving the remaining natural resources. Zero Waste (ZW) is a holistic solution in managing waste and resources in a city in a sustainable way [16]. Moreover, zero waste has also changed people's attitude towards wase since waste that is considered to have no benefit can become economically valuable in the zero waste management system. Waste even becomes more valuable when it is properly recycled [17].

Achieving zero waste requires strong commitment and cooperation from all stakeholders, but its benefits are worth it. Benefits of zero waste can be assigned in four areas including benefits to the community, benefits to economy, benefits to the environment, and benefits to household.

Benefits to the community: Zero waste approach can promote social equity and enhance community formation. It also supports marginalized community, builds community capacity, and protects the community health. When focusing on reusing resources, the community can distribute the useful products to the people who are in need. For example, leftover food can be donated to the poor, used furniture can be donated to refugees, and the slightly used clothes can be reused by other community members. For the community-based organic waste management, such as composting at a community garden, people in community can share tools and skills for reuse, repair, and recycle which allows everyone to participate in protecting the environment. They can reduce waste and pollution in the air, water, and soil which protects the health of the community [18].

Benefits to economy: In zero waste management system, waste of one person can be material/resource for something new. It creates more jobs in the community as composting, recycling, and diverting require more people to do the jobs than the disposing does [19]. In addition, resource recovery is a high-labor activity that provides a variety of jobs to different groups of people, from vulnerable members of the community to highly-skilled workers [20]. Zero waste

strategies also helps the community becomes less dependent on imported materials and products, thus, local funds are spent on local products and services instead of going outside the community. Besides saving the money, it also helps reduce CO2 emission due to the reduction of transport [21].

Benefits to the environment: Zero waste strategies, including planning our meals ahead, reducing unnecessary food purchase, delivering leftovers to those in need, and composting to reduce organic waste from landfills, can help us reduce the emission of greenhouse gases such as carbon dioxide and methane—a greenhouse gas more potent than carbon dioxide [22]. Also, compost from organic waste can be used as fertilizer to improve soil structure and quality for growing new food. Moreover, zero waste helps conserve natural resources and minimizes pollutions that come from extracting, manufacturing, and disposal.

Benefits to household: Going zero waste means reducing unnecessary purchase of products, thus, a household can save more money. Also, when mindfully buying foods, a family will reduce and eventually eliminate packaged processed foods and snacks which will allow the family members eat healthier foods and get healthier.

V. SUFFICIENCY ECONOMY PHILOSOPHY

In the consumption driven society, high consumption can be used to drive a country's GDP, but this consequently destroys the ecosystem. Consumption means the acquisition and use of resources leading to the depletion of Earth's limited resources [23]. American population, for example, makes up just 4 percent of the world's population, but generating 12 percent of the planet's yearly waste. According to the United States Environmental Protection Agency (E.P.A.), the country's annual waste sent to landfills include 840,000 tons of plastic plates and cups, 3.4 million tons of diapers, 8.2 million tons of clothing and footwear and 910,000 tons of towels, sheets and pillowcases [24]. For Thailand, 26,850,000 tons of municipal waste is yearly generated. Out of this amount, food and organic waste takes up 64% [25]. Therefore, it is important to understand that human's consumption behaviors are related to waste generation, and we need a new model of economic activity that benefits quality of life while allowing the ecosystem to recover.

Consumerism and shorter cycle of consumption is considered as a major cause of the increasing waste of resources and volume of refuse such as community garbage, industrial waste, hazardous waste, and emission of carbon dioxide and toxic gases. Higher demand of the increasing population leading to higher demand of resources and volume of refuse as well as wasteful manufacturing processes and technologies also cause pollution. In addition, inappropriate use of land exceeding the earth's carrying

capacity is responsible for increasing pollutants while limitations of manpower, budget, and bodies of knowledge make it more difficult for communities to handle the increasing waste and pollutants. Waste situation is getting worse when public awareness, participation in administration processes, and economic tools in pollution management remain limited.

If the waste problems have been closely examined, the root of the problems could be seen. Never-ending requirement, overconsumption, excessive possession, and unawareness of the negative consequence of self-actions are the main causes of extreme waste problems, pollutions, and too much extraction of natural resources. To sustainably tackle with waste problems at roots, sufficiency economy philosophy (SEP) is considered as a systematic guidance for waste management plans and strategies. Sufficiency economy philosophy, developed by the King Bhumibol Adulyadej of Thailand, is a practical guidance suitable for everyone to follow. It consists of three principles: moderation (not excessive or not extreme), reasonableness (being aware of the connection between actions and consequences), and prudence (being immune to the internal and external changes) [26]. Besides, there are two preconditions attached to these principles: virtues (positive values of a person or positive norms of a group) and knowledge (simply what is known or empirical evidence).

Sufficiency Economy Philosophy (SEP) relates to Buddhist principles of middle path which encourages an individual to live his life with self-reliance and self-satisfaction. It guides people at all levels to improve their livelihood and behavior while promoting balanced development in a sustainable way. Sufficiency, meaning not excessive/not extreme, can be applied in both production and consumption phases. When being applied to consumption, consumers make their choices of consumption with care for themselves and for others and being aware that overconsumption can lead to problems of waste, pollution, and depletion of natural resource. Consumers who follow sufficiency philosophy consume only what they really need and choose products carefully. Moderation influences consumers to stop themselves from never-ending requirement and rethink if it is a need or a want. With reasonableness, they realize that over-consumption/purchase/production will cause excessive waste and pollutions that harm people and environment at the end. Prudence influences consumers to examine what he/she can do to support the two top priorities of 3R strategies: Reduce and Reuse. Virtue will guide them to consume with responsibility as they care for others and avoid harming each other and the environment while knowledge helps them understand the real problems/situation of waste and pollutions which will lead them to follow this path whenever they make their choice in consumption. (Figure 3)
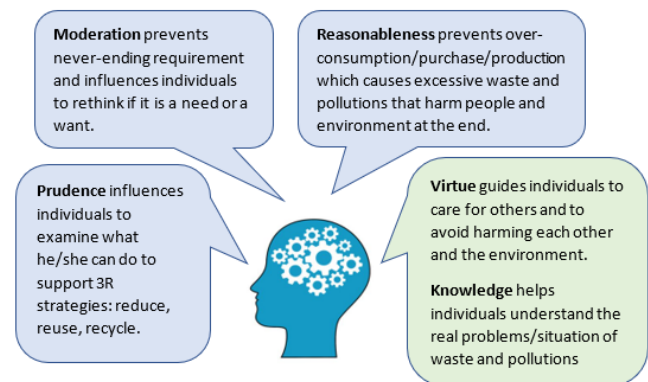
Figure 3. Consumption Behavior in Sufficiency Economy Philosophy Framework

The Sufficiency Economy Philosophy also can be used in all sectors in the country including waste management. Moving towards zero waste, a city need to raise awareness and realization of both the producers and consumers to construct sufficiency mindset and to create knowledge-based attitudes towards zero waste lifestyle. It is also essential to increase awareness among stakeholders to realize the value of waste and treat it as valuable secondary raw material while properly including the 3R (Reuse, Recycle, and Reduce) in their business practice perspective. At the same time, people in community can actively participate in the process of recycle besides their cooperation in reduce and reuse. It is important to encourage people in community to follow zero practices in separating waste for recycling and exercise reasonably purchasing habits with the aim to reduce waste. Following the sufficiency economy philosophy, a city can achieve zero waste goal in a sustainable manner, including the minimization of waste generation while maximizing the waste recycling.

The environmental crisis and natural resource depletion make people realize that unbalanced development plans and overconsumption have negative impacts on the natural and environmental resource capitals. Besides being applied to waste management system, Sufficiency Economy Philosophy can be applied as strategies for development of biodiversity and conservation of the environment and natural resources including three 3 approaches—maintaining resource bases and balancing the conservation and utilization of resources; creating good environment to upgrade people's quality of life and sustainable development; and improving the value of biodiversity and local wisdom to strengthen the foundation of economic structure for long-term biodiversity-based development. The strategic implementation in accordance with those approaches will help maintain the prosperity of natural resources to support fundamental living of people and keep the environmental problems under control so they do not disturb the delicate condition of the ecosystem for living as well as preserve the resource biodiversity which is an opportunity to make use of the existing changing context and

to relate people's ways of living and local wisdom to new knowledge and innovations.

Waste solutions and waste management towards zero waste cannot be achieved by a sector or by an organization. It, however, needs helps and supports from everyone in the society. Therefore, every sector should take into consideration and unite to find an efficient solution. Consumer behaviour based on sufficiency economy philosophy can be considered as one of contributions to zero waste management. The solution of the solid waste problem could have a positive impact on the national economy; promoting tourist visits, alleviating environmental degradation, reduce water contamination and air pollution which is a source of disease transmission.

CONCLUSION

Every year more and more waste is generated and the situation is exacerbated by our overconsumption behaviors. A huge volume of waste is sent to landfills and incinerators. Landfill sites can be a constant threat to the environment as they take up large pieces of land to exist; causing damage to ecosystems, they are a blot on the landscape in our natural surroundings, and they are one of the major causes of toxic contamination of soil. Burning waste in incinerators also pollutes the air by producing hazardous air pollutants such as carbon monoxide and PM 2.5 and it needs strong environmental controls.

The current linear economy; take-make-use-dispose, can be identified as a major cause of the excessive amount of waste. Thus, zero waste strategies help manage our resource in a way of preserving their value and energy in a circularity chain and lead to waste reduction while our consumption behavior has to be changed in order to keep our planet away from excessive waste and toxic conditions. To make this happen, a waste preventive policy must be adopted to promote reduce, reuse, and rethink practices, followed by increasing separation in the waste collection at source and quality recycling. Significantly, overconsumption culture needs to be changed to ensure that we are not taking resources and wasting them over our planet capacity.

To stop the production of excessive waste and the uncontrolled climate change, cities need to replace their waste addictive behavior with sufficiency lifestyle. Sufficiency Economy philosophy is a practical guideline for the traditional lifestyle of Thai society in which all aspects of life are interconnected because it allows peaceful coexistence of different things. Sufficiency, meaning not excessive/not extreme, can be applied in both production and consumption phases. When applying the philosophy to consumption, people become more aware of the negative consequences of overconsumption and they will make their choices of consumption with care for themselves and others as well as

with care for the environment and the sustainability for the future generations.

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A Buddhist Propagation Competency Development Model of Administrative Monks in Sangha Administration Region 17

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Abstract— The purposes of this article were 1) to study the state of Buddhist propagation competency, 2) to develop a model of Buddhist propagation competency development, and 3) to propose Buddhist propagation competency development model of administrative monks in Sangha Administration Region 17. Mixed methods research was designed with 3 phases. Phase I was to study the state of Buddhist propagation competency using questionnaires to survey 234 monks. Data were analyzed by using percentage, mean and standard deviation. Phase II was to develop the model using interview with 15 key informants and content analysis was used for the analysis. Phase III was to propose the model and 9 experts were attended at focus group discussion, and data was analyzed by content analysis. Results showed that 1) the state of Buddhist propagation competency consisted of 3 aspects which were knowledge, skills, and personal characteristics. Overall level of practice was at high level. 2) There were 5 components in a model of Buddhist propagation competency development of administrative monks in Sangha Administration Region 17 which were (1) principles, (2) objectives, (3) procedure, (4) process development applying the threefold training as Buddhist principle encouraging the propagation competency development compose of content, objective, learning management, teaching media, activities, method of development and assessment, and (5) learning assessment. 3) Buddhist propagation competency development model of administrative monks in Sangha Administration Region 17 was appropriate in competency development for contribution of happiness to communities and Thai society.

Index Terms— *Model, Buddhist Propagation, Competency, Administrative Monks*

I. INTRODUCTION

Buddhism therefore flourished in Thailand has been a model for Thai people's lives for a long time. Moreover, Buddhism is the religion that brings people and society to the development of mind and wisdom through various methods of practice [1],and to promote mental training and intelligence training to achieve true enlightenment [2], with Dharma practice centers scattered throughout the country. Almost every community has strengthened the Thai people both mentally and wisdom. It is able to cope with all kinds of problems enabling Thai people to live happily in the midst of various environments as well. Therefore, the traditional Thai community has a way of life dependent on nature, self-sufficiency, generous living in the community, support and share with each other, living in kindness, generosity, having a family as a means of binding people in the community together [3].

The practice and life of monks according to the Dharma Vinai will build faith. It is an incentive for Buddhists to be happily coexist in society indicates the success of promoting Buddhism to be sustainable and permanent. As the word said Buddhism is the national religion and can continue to flourish forever, with the reliance on the Sangha, therefore

the highest-ranking monk and is of great importance as the leader of the temple administration and maintenance in order to be in good order that has important duties related to governance, religious education, education, work, propagation, public utilities, and public welfare until it says "Buddhism will prosper because of the devotion of the people. Monks are indeed the main person to develop temple to propose the prosperity of Buddhism, so the development of the temple is the center of the community. Monks must be persons respected by the people, and it is the faith of the people" [4].

In the Sangha Administrative Region of Region 17, the Sangha of the Region 17 consists of 5 provinces, namely Krabi, Phang Nga, Phuket, Ranong and Trang, where the Sangha has performed duties as both a Sangha (Sangha Leader) who spread Buddhism to Buddhists, and is the authority and duty under the Sangha Act and the Sangha Association of many important laws especially to control and promote the maintenance of good tidiness, religious education, education and work Buddhism Public assistance and public welfare to go smoothly[5].

From the previous research, many issues have found the problem of Buddhist propagation of the monks, which is the

problem of Buddhism. The propagation of Buddhism in the 21st century, if the monks who are the center of Buddhism ignore, does not develop propagationcompetencies probably because of the work of an abbot level. Dharma teacher may be redundant, lack of clarity, using people who are not suitable for the job, lack of a system of motivation, and lack of performance appraisal criteria [6]. In addition, the research also found a solution to the problem of Buddhist propagation, that is, the abbot level monks should have the capacity to propagate and manage the monastic affairs in order to be orderly success in promoting Buddhism because of the propagation of the Abbot level. The essence is to expand the teachings of the Dharma. It is the practice of Dharma, which is the practice of indifference which arises from the continuous development of the missionary competence, thus creating the great of Buddhism to be seen and proven [7].

It showed that the Sangha is very important to the administration of the Sangha which if the monks do not have knowledge and ability to spread Buddhism, it may cause the administration of the Sangha and the propagation of Buddhism to not be as successful as it should be. Hence, it is necessary to develop the capability of spreading Buddhism to the monks by integrating the principles and concepts of competence to the propagation of Buddhism in order to develop the monks to be more effective in propagating from the background and significance of the problems mentioned above. The researcher is interested to study a model for the development of Buddhism competency of the monks in the Sangha Administration Region 17, in order to develop the monks to be capable of spreading Buddhism and to benefit the administration of the Sangha in the propagation of Buddhism in the Sangha Administration Region 17 continually.

II. RESEARCH OBJECTIVES

The purposes of this article were 1) to study the state of Buddhist propagation competency, 2) to develop a model of Buddhist propagation competency development, and 3) to propose Buddhist propagation competency development model of administrative monks in Sangha Administration Region 17.

III. RESEARCH METHODS

Mixed methods research was designed for this research and 3 steps were conducted as follows:

Step 1: to study the state of Buddhist propagation competencyof the monks in Sangha Administration Region 17 by studying documents on the characteristics of the evangelical competencies. Questionnaire was used to collect data from the monks in the 17 ecclesiastical area, which consisted of 576 for the population, and the sample were 234 samples of the monks by opening a sample size table of

Krejcie, R. V. & Morgan, D. W. [8].The data were analyzed by descriptive statistics such as percentage, mean and standard deviation.

Step 2: Develop a model for the development of Buddhism competency of the monks in Sangha Administration Region 17 by studying the documents related to the principles and methods for the development of personal competency. Buddhist principles are used to support and to create interview questions about competency development techniques and the application of Buddhist principles to support competency development by 15 key informants in the interview and analyzed the data by using content analysis.

Step 3: propose Buddhist propagation competency development model of administrative monks in Sangha Administration Region 17, qualitative research was designed by organizing focus group discussion with experts to determine the suitability of the model by the experts who participated in the group discussion, 9 experts were selected according to purposive sampling with knowledge of competency development and have knowledge about the propagation of Buddhism, and data was analyzed by using content analysis.

IV. RESULTS

1. The performance of Buddhism propagation of the monks in the Sangha Administrative Region 17, in general, had a high level of practice and when classified by each side found at high level in all 3 areas: knowledge, skills and attributes.

2. There were 5 components in a model of Buddhist propagation competency development of administrative monks in Sangha Administration Region 17 which were (1) principles, (2) objectives, (3) procedure, (4) process development applying the threefold training as Buddhist principle encouraging the propagation competency development compose of content, objective, learning management, teaching media, activities, method of development and assessment, and (5) learning assessment, which called the CIPP Model as in Fig. 1.
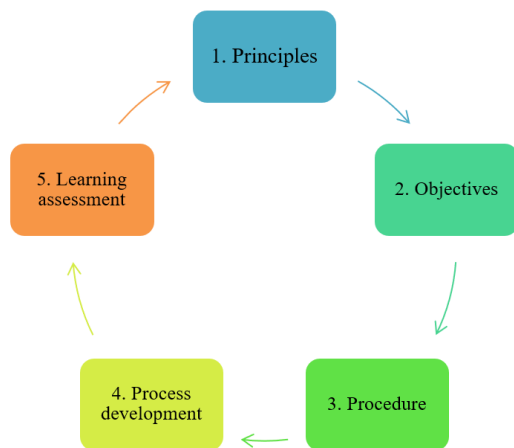
Fig. 1 A Buddhist Propagation CompetencyDevelopment Model of Administrative Monks in Sangha Administration Region 17

3. Buddhist propagation competency development model of administrative monks in Sangha Administration Region 17 was appropriate in competency development for contribution of happiness to communities and Thai society as well.

V. DISCUSSIONS

The researcher found important points to be discussed as follows:

1. The status of the Buddhist propagation competencies of the monks in the Sangha Administrative Region 17 in all 3 areas, namely Knowledge, Skills and Attributes, in general, the level of performance was at a high level. When considering the aspects from the areas with the highest to least performance rank, it was found that the attributes were at the level 1 of the performance level, Knowledge competencies were ranked at 2, and the competency in skills has a level of practice in the third rank, probably because the present monks have a higher level of religious and secular education especially at the university level. In addition, it is consistent with the research of Phramaha Saranakhai Mahapunho showed that the development of the monks have progressed in their propagation, and the language skills of the present day. They are ready to speak, sermons, lectures, write and print Buddhist texts and compose textbooks in literature, academic texts, including focusing on people having leaders. It is considered to follow teaching in theory and practice at the same time. Therefore, it should have a short-term plan and long-term plans to train monastic leaders both in theory and in practice by organizing a policy hearing principles of propagation and practice of speaking sermons, lectures and producing media in various forms of

propagation of Buddhism in order to be able to proactively and effectively carry out missions [9]. It is consistent with the research of Chot Bodirat, the state where the research results showed promoting the monks to study and develop leadership. There is a development of competency and administrative workload by training the Sangha to be the leader in mental development, ethics, morality, and to have the knowledge and skills to prevent Buddhists from losing their faith in Buddhism and to continue to believein Buddhism [10].

2. A model for developing the capability of Buddhism propagation of the monks in the Sangha Administrative Region 17, was a model development through document synthesis and interviews with 15 experts, then drafted a model for the development of Buddhism competencies of the monks in the Sangha Administrative Region 17, consisting of 5 elements: (1) principles, (2) objectives, (3) procedure, (4) process development applying the threefold training as Buddhist principle encouraging the propagation competency development compose of content, objective, learning management, teaching media, activities, method of development and assessment, and (5) learning assessment. A competency development model that is suitable for the development of the Buddhist missionary competence of the monks related to Phrarajchamethi's research work and the research results showed the guidelines for the development of the monks' competency development consisted of knowledge (Knowledge) 1) Sangha law, rules, regulations, resolutions and announcements of the Supreme Sangha Society for disclosure, 2) Policy, strategic plans and leading to propagation practice, 3) Education Buddhism by learning both theory and practice, 4) techniques and methods of propagating Buddhism, 5) techniques and methods of preaching, and 6) application of information technology media on propagation [11] and also related to the research of Phramahatharuti Wirojno (Rungchai Witoon)where the research results were development of the Sangha in the administration of the current Thai Sangha in the propagation of Buddhism is a development for the monks to have progress in propagating and the language skills of the present day focused on people to practice Dharma according to the power of faith considered. It was an order exam in the theory and perform at the same time [12].

3. The results of the presentation of a model for the development of Buddhism competency of the monks in the Sangha Administrative Area, Region 17, consists of 5 elements:(1) principles, (2) objectives, (3) procedure, (4) process development and (5) Evaluation, which experts commented that it is appropriate and feasible for the development of the Buddha's missionary competencies in the Sangha Area. The propagation of Buddhism of the Sangha in the Sangha Administrative Region 17, which is the result of this research is a complete model development

process according to the 3-step model development approach, as follows:The first step was the study of the Buddhist propagation competency of the monks in the Sangha AdministrativeRegion 17 by studying the documents analyze data through content analysis. The sampling questionnaire was used by 234 samples and analyzed the data by descriptive statistics such as frequency, percentage, mean and standard deviation, and presented in the form of a table with a description. Step 2 Development of the model by studying documents, analyzing data with content analysis and interviewing 15 key informantswith tools for research, namely interview form and data analysis by content analysis. Step 3, the proposal of the model by discussing a group of 9 experts, the research tools were questions for focus group discussion, and perform data analysis with content analysis. This is related to Thawatchai Rattanyoo said that model development is a process of creating or developing a model containing the study of related knowledge of model sketching and to investigate the suitability and feasibility of the try out model [13].

VI. RECOMMENDATIONS

A. Recommendations for Practices

Government Sector, National Buddhism Office and related agencies should do the following:

1) This research should be applied to achieve a concrete development of the Buddhism competency of the Sangha in the Sangha Region17 which is useful and necessary for the administration of the clergy.

2) This research should be used to develop a manual for the development of the Buddhism competency development of the monks in the Sangha Administrative Region 17.

3) This research should be organized a meeting of the PatriarchsRegion 17, to have an agreement to cooperate in building a network of Buddhism propagation of the monks at all levels.

B. Recommendations for Further Research

1. Should focus on the development of the knowledge of Buddhism propagation (Knowledge) is 1) Sangha Law, Sangha Act, including the law of the country that is beneficial to the propagation of Buddhism. 2) Restoration, restoration a building inside a temple to develop and improve the measure to be suitable for the propagation of Buddhism, and 3) Meditation and Vipassana meditation.

2. Emphasis should be placed on the development of Buddhism competency in skills that are 1) fundraising skills to fund the propagation of Buddhism, 2) skills of managing local culture education resources, and 3) skills in organizing in the proactive propagation of Buddhism.

3. Emphasis should be placed on the development of the propagation competency of personal attributes: 1) Faith and spiritual leadership for society, 2) Propagation qualifications, and 3) Personal behavior being as a good role

model with a public mind, and help support including share your physical and mental happiness for those who are in distress.

CONCLUSION

The research paper on the development model of Buddhist propagation competency of the monks in the Sangha Area Region 17, is a combination of both quantitative and qualitative research. It is a development model for the development of Buddhism competency of the monks in the Sangha Administrative Region 17, consisting of 5 components: (1) Principle, (2) Objectives, (3) Action system, (4) Development process. It consists of Buddhist principles that promote the development of the Buddhism competency, namely the Trisikkha principle and the competency development process is the essence, objectives, learning management, media, equipment, activities, development methods, evaluation methods. (5) Evaluation and summary of knowledge based on this research;it was called CDB MODEL that was the process of developing the monks'competency for the propagation.

C = Competency, Competency is the competency of Buddhism propagation of the monks in 3 areas, which are: 1. Knowledge of Buddhism consists of 1) Sangha Law, Sangha Act, as well as government law that is beneficial. 2) The restoration of buildings and places in the temple, to develop and improve the temple to be suitable for the propagation of Buddhism. 3) Meditation and Vipassana meditation 2. the skills of Buddhism propagation skills consisted of 1) Fundraising skills to fund the propagation of Buddhism, 2) Management skills of local cultural learning resources, 3) Proactive Buddhism skills 3. The characteristics of personal characteristics of Buddhism (Attributes) consisted of 1) leadership of faith and spirituality for society, 2) the qualifications of the Dhamma mission, and 3) behavior as a model of good character and public mind, help, support, and share your physical and mental happiness for those who are in distress.

D = Development, Development is the development of the monks to be knowledgeable and competent according to the Buddha's propagation capacity, including 1) workshops and academic seminars to achieve knowledge, skills, and personal attributes, 2) Group discussion to learn and exchange about knowledge, skills and personal attributes. 3) Learning knowing from action learning to achieve knowledge, skills and personal attributes.

B = Buddhism, Buddhism is a Buddhist principle that promotes the development of Buddhism competency, namely, the Trisikkha principle, namely 1) the precepts, the practice for the training of high conduct, 2) the meditation, the practice for training the mind for Moral, 3) wisdom,

practices for training intelligence to achieve high enlightenment as shown in Fig. 2.
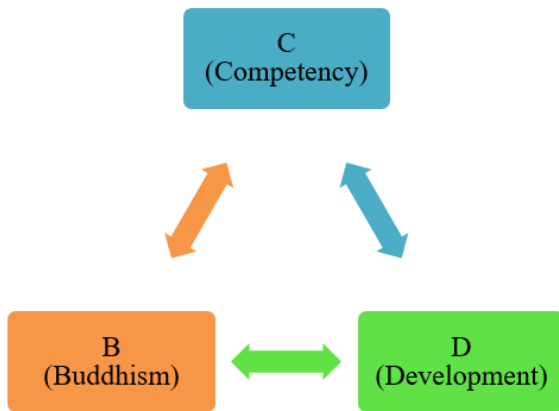
Fig.2 CDB MODEL

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The development of online marketing channel for safe vegetable in Thailand

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Abstract— This research aims were to; 1) to develop an online marketing channel for safe vegetable in Thailand. The research model was mixed methods. The theory of Extended Model of Internet Commerce Adoption (eMICA) was used as a research framework. The research area was Nakhon Pathom Province. The sample group was divided into 3 groups as follows; 1) 30 smart farmers who grow safe vegetables; 2) People who are involved in the safe vegetable business, including entrepreneurs and academics, were 10 people by using a specific randomization and 3) 400 people of online consumers by using simple randomization. The tools used were semi-structured interviews and questionnaires. Then analyze the results for the development of online marketing channels. The research found that farmers had online marketing channels sorted by their sales as follows; Facebook 16 users, Instagram 5 users, online orders 7 users and Shopee 2 users. The results of the trial are sold through online marketing channels, when comparing the highest efficiency was Facebook channel where customers can reach at 78.23% and generate the most income at 68.15 percent. Research findings on shipping, packaging, and consumer behavior are emerging in the process of developing online marketing channels.

Index Terms— *online marketing channel, safe vegetable*

I. INTRODUCTION

Thailand is the 11th food exporter in the world and the 2nd in Asia. Export value of US$ 33,100 million (Office of the National Economic and Social Development Council, 2019). It creates jobs for more than 11 million people in rural areas (National Statistical Office, 2019). Agricultural income accounts for 8.5 percent of GDP in Thailand (Office of the National Economic and Social Development Board; NESDB, 2019). In 2019, vegetables generated US$ 2,996 million in revenue for the country (Office of the Permanent Secretary, Ministry of Commerce, 2019). Nakhon Pathom Province is the main area for growing vegetables with a total area of 709,474 rai and the number of farmers 48,639 households (Nakhon Pathom Provincial Agriculture Office, 2019). According to a review of the vegetable supply chain literature in Thailand, it was found that there was a lack of readiness in the production process with high production costs, uneven output, unstable selling prices, and the middleman has high pricing power. Including the complexity of marketing channels and narrow marketing channels. The characteristics of the product perishable and the shelf life is short. This makes it necessary for packaging that is able to maintain quality and suitable transportation in order to reliably meet customer needs in terms of quality, quantity and price (Donald & David, 1996; Huang et al, 2008). In addition, the current changes in the purchasing behaviour of customers who are more popular to buy products via online channels and the development of Thailand needs to be driven by innovation. There has been a shift from traditional agriculture to modern agriculture with an emphasis on management and technology. Farmers must be able to be modern entrepreneurs by implementing technology in the management process, sharing information, and optimising resource allocation using the online trading system (Xiuhui & Qinan, 2007). Online marketing channels are low-cost, time-consuming and cost-effective marketing tools. It provides opportunities for farmers who want to develop their business processes and create their image up to date by adopting appropriate technology. This research is the development of online marketing channels for safe vegetables in Thailand to increase the potential of the safe vegetable supply chain in 4 areas; 1) reduce costs, 2) increase production quality and product standards, 3) increase various marketing channels, and 4) manage and transmit information, knowledge and information, technology applications. The objective of this research is to develop an online marketing channel for safe vegetables in Thailand. The expected benefits of this research are to provide farmers with a sustainable competitive advantage, generate more income, and become self-reliant by using information technology. This resulted in a prototype online marketing channel that could be applied to conventional agricultural products, leading to a real development in 21st century agriculture.

II. PROCEDURE FOR PAPER SUBMISSION

A. Review Stage

Defining the meaning of online marketing as the use of information technology as a communication tool to support the implementation of business processes (Burgess et al, 2001). The adoption of digital technology and social media to provide information, receive online orders, and perform online transactions are business processes through information technology. Based on previous research reviews, it was found that The Theory of Extended Model of Internet Commerce Adoption: eMICA, Burgess et al (2001) used in the development of commercial online marketing models consisted of 3 steps; 1) Implementing information technology and digital social media for the promotion of business products and services, 2) Implementing information technology and digital social media to provide information, news and services, and 3) Introduction of information technology and digital Social media is used for transaction processing. Increasing the functionality of information technology and digital social media is the application of innovation to add value to activities in the vegetable supply chain through information management and multitasking (Timmer, 1999). Including the implementation of online marketing models as a strategy to create competitive advantages, allowing customers to gain more value in the organisation's products or services than competitors for the survival and growth of the business organisation (Laudon, 2016). For entrepreneurs and farmers in Thailand, online marketing can be used to help increase business efficiency in 4 areas; 1) cost savings, 2) differentiation for products, and 3) building closer to customers. From past research studies on online marketing, it was found that the DeLone & McLean Information System Success Model,(DeLone & McLean,2003) which is a model theory used to measure the success of information systems by compiling various factors including quality. Information, quality of use systems, personal impact, and organisational impact. Researchers expanded the study by using Kotler's Theory of Purchasing Behaviour (2009) to describe the nature of consumer behaviour searching for questions about 6Ws and 1H which are; who is in the target market, what consumers buy, why do consumers buy, who is involved in consumer purchasing decisions, when do consumers buy, and how do consumers buy. Therefore, planning for the development of an effective marketing channel must be based on expected changes in consumer behaviour in the future, in line with previous research that consumers have a set price before making a purchase. When a consumer accepts a product price, it affects the acceptance of the quality of the product or service that the product or service is of suitable quality. Consumers will compare the quality of the product with the amount to pay that it is appropriate or not. If consumers think that it is appropriate, they will make a decision to buy the product. As for the success of online marketing channels such as websites, social media can be measured by retaining their customers by keeping them coming back for future purchases. Past research indicates that the quality of a website or social media will influence the decision to buy on a well-designed website or social media, causing more consumers to buy. In addition, in the process of developing the online market model, participation theory has been

applied in the development by allowing those who are involved in the safe vegetable supply chain to share information and needs. In the same direction as previous studies, it was said that involving stakeholders such as users and service providers develop an online marketplace that will have an impact on the efficiency and responsiveness of their customers (Blanca Hernández, 2010; Kuan, Bock and Vathanophas, 2008; Julian Terry and Craig Standing, 2001) as shown in figure 1.
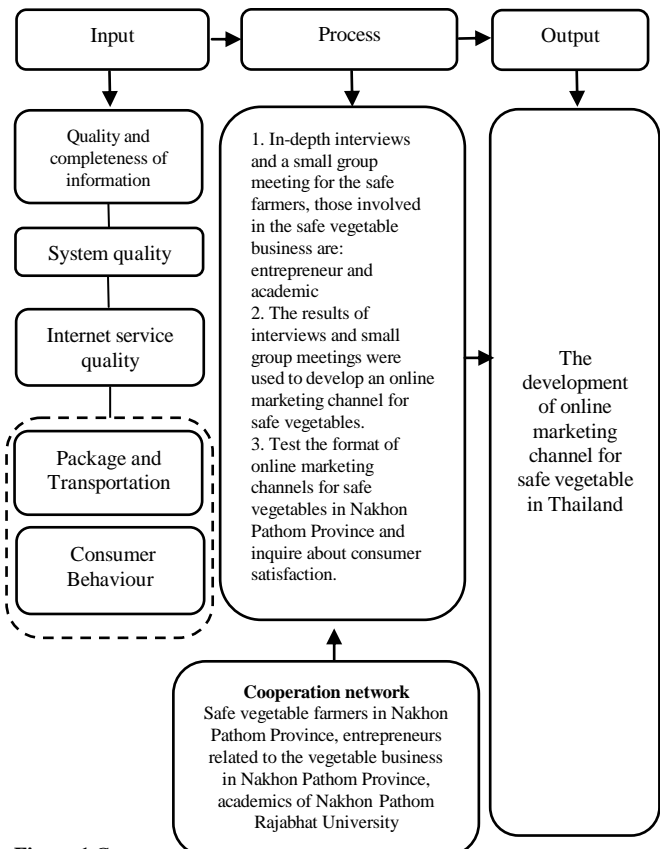
Figure 1 Conceptual Framework
Source: Updated from Kuan, Bock and Vathanophas (2008).

III. MATERIALS AND METHODS

This research is qualitative research. Areas in Nakhon Pathom Province. The qualitative research instrument was a structured interview. The data was examined using triangulation. The sample group consisted of 2 groups which are; 1) 30 safe vegetable farmers, 2) 10 government agencies and academics using a specific randomisation. Research method, this research uses a qualitative research methodology as the main guideline for the purpose of using information to develop online marketing channels for safe vegetable in Thailand. Researchers have reviewed the literature and past research documents, analysed and synthesized in order to obtain a research conceptual framework, to answer the research objectives with a total of 7 steps as follows;

Step 1 study document data, analyse basic data, which is a

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concept review. Explore past research papers and information from relevant websites to obtain criteria for selecting potential samples that use in the study, by collecting data from the original database of Nakhon Pathom agriculture and visiting the area to explore the potential and readiness of farmers in the area. Conduct analysis, assess potential to determine the case study area. Identify educational issues of selected areas, as well as to study conceptual documents, theories and research work related to the development of an online marketing channel for safe vegetable in Thailand.

Step 2 framing research from literature review and determine the sample group for data collection, by specifying the organic farming community enterprise and the safety agriculture group in Nakhon Pathom Province who have potential according to their relevance and knowledge in specific content.

Step 3 design research tools, to obtain the completeness of the content according to the research objectives. Researchers have defined tools, methods, and data collection methods, using in-depth interviews, brainstorming and engaging observations to develop an online marketing channel model for safe vegetable in Thailand.

Step 4 brainstorming activity, organised a workshop to allow farmers to discuss, exchange knowledge and experience in designing and developing online marketing channels for safe vegetables in Nakhon Pathom Province by using participatory action research. Establishing an innovative process and finding creative ideas from farmers to implement in developing an online marketing channel for safe vegetables in Thailand, by using participatory subgroup meetings. It was obtained by both farmers and researchers to provide feedback, a process for leading the development of online management and marketing. Resulting in creating added value and making the most of all sectors.

Step 5: design online marketing channel model and develop online marketing channel model for farmers to grow safe vegetable by synthesizing data from quality research, "The online marketing channel for safe vegetable in Thailand", and let experts evaluate the feasibility of the format.

Step 6: Testing to sell safety vegetable through online marketing channels and assessing the effectiveness of sales according to the research conceptual framework.

Step 7: collection of information to make it accurate and reliable. In which to examine the qualitative data, researchers will use the triangulation by using method as follows;

7.1   Data triangle investigation (Triangulation) is to prove that the information, researchers have obtained, correct or not by examining it from time and place and by people.

7.2 Comparisons based on multiple data collection methods (Methodological Traingulation) is the collection of information from various sources.

7.3. Comparisons from the use of multiple theories and concepts (Theory Triangulation), is the examination of whether the researcher can use theoretical concepts, analyses, and processes. This can be done by correlating the relationships in different terms based on facts, both cause and effect. The analysis will come out in a descriptive manner, leading to the answer in the study and summary (content analysis).

IV.   RESULTS AND DISCUSSION

The development of the online marketing channel model for safe vegetable in Thailand shows the research results into 2 parts
1) Traditional safe vegetable marketing channel model
2) Online marketing channel model by application of eMICA format, the details are as follows;

1)   Traditional safe vegetable marketing channel model

Traditional safe vegetable marketing channel model found that the marketing channel was complex. It goes through a number of intermediaries from the manufacturing process. Farmers must control the production process of safe vegetables that contain chemicals, do not exceed the standards set by the Ministry of Public Health. The produce must be safe for consumers through a process of midstream activities involved in the distribution of safe vegetable through multiple channels. For example, collectors that collect safe vegetable from farmers to deliver safe vegetables to the central market for exporting companies to foreign customers, hotels or restaurants, factories, shopping malls, retail stores, fresh markets or local markets to domestic customers. It can be seen that the traditional safe vegetable marketing channel has many stakeholders. It focuses on selling as buyers directly to the seller, known as offline sales. It is complicated by many steps. This reflects the increase in costs as the number of intermediaries passes and the longer the time, which results in deterioration of the quality of vegetables. From the above factors, the concept can be explained from Figure 2.
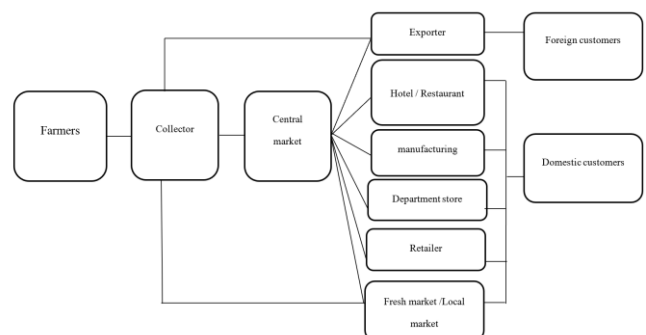
Figure 2 Traditional Safe Vegetable Marketing Channel Format

The change in the form of a new safe vegetable marketing channel by introducing information technology systems to help increase the marketing channels for farmers called online marketing channels, shortens the marketing funnel and reduces the number of intermediaries in the marketing funnel. It is direct sales from farmers, producers to consumers, which creates a competitive advantage. As it is a low cost marketing tool, it can reduce time and expenses as well as increase marketing channels. As a result, it creates business opportunities to reach buyers around the world, which is consistent with today's consumer behaviour using various online transactions. Therefore, it made the new safe vegetable marketing channel form a shorter channel.

It can be delivered directly to consumers with logistics support activities in delivery and distribution. The concepts mentioned above can be explained from Figure 3.
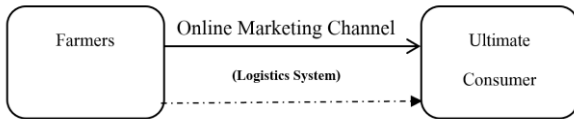
Figure 3 The new safe vegetable marketing channel model

2) Online marketing channel model by the application of eMICA format.

Selling through online marketing channels is gaining popularity in the agricultural businesses that are needed in daily life such as fresh vegetables, safe vegetables, and organic vegetables. Farmers or entrepreneurs have added new marketing channels using IT and creativity, making it a different marketing channel model. As a result, they can trade online 24 hours a day and expand opportunities to people around the world. This will save costs, have the potential to increase sales, create a competitive advantage and provide two-way information. The application of the eMICA model in the development of an online marketing channel model for safe vegetable in Thailand was developed from the concept of Burgess et al (2011), by applying technology to the development of online marketing channels. There are 3 working steps which are;

Step 1: Inputs are a study of the needs of the buyer and the preparation of produce which is safe vegetables. In addition, farmers must prepare skills, knowledge of online marketing mix, new marketing elements that apply the traditional marketing component (4P), together with the technology talent that adds to the delivery of personalised service and privacy, resulting in a new marketing component, 6P + 2C + 3S (Kalyanam & Mclntyre, 2002, p 496) consisting of; 1) Product aspect, should be analysed to meet the needs of customers, 2) Price aspect, survey the purchasing behaviour on the internet, and found that price is not the main factor in choosing to buy. Entrepreneurs should focus on pricing to suit the quality of the product, 3) Distribution channels, creating a website or page on a social channel must have a domain that is easy to remember, easy to use and beautiful, including the convenience of ordering, 4) Marketing promotion, public relations and organising sales promotion activities, 5) Personalization service should focus on individualised services, collecting customer information, creating a different impression, and 6) Privacy, the operator must keep the customer's confidentiality and not distribute the customer's information before getting permission. 2C consists of; 1) Customer Service gives customers the importance to make repeat purchases, 2) Community online format used to communicate. 3S consists of; 1) Efficient Site, easy website access, 2) Security, payment security and service usage, 3) Sale and promotion, which uses the above factors for promoting products and services of the business.

Step 2: Action by designing and testing online marketing channels with a focus on developing agricultural skills and knowledge. It is a potential enhancement in the form of "SMART Farmers Model" which is a guideline for applying digital innovation technology to develop farmers' potential to increase their competitiveness. It is also a systematic action model that helps proactively marketing to be effective and meet the highest consumer demand until repeat purchases. It consists of 5 elements:

1. Social Media (S) is a powerful marketing tool because there is a large number of individuals of all ages on social media. It represents a huge target audience. This research uses tools for business communication as well as promoting products and services to consumers via social media by tools such as Facebook, Instagram, and Line application. This group of tools will be used to target audiences because they can be used via smartphones, which are easily access, convenient, quick, economical, and can be done anywhere anytime. It can also present content including text, images and videos. Making it possible to run business with flexibility. It is also possible to create online networks between farmers with farmers, farmers with customers, and farmers with entrepreneurs. Also, it can be assistant agency or other relevant agencies to exchange information and knowledge and provide assistance to each other.

2. Marketing Tools & Marketing Platform (M) Determining the right marketing tools by defining strategies that target the right target audience, adopting appropriate digital innovation technology tools for products and services, content formats and public relations channels through online marketing models, especially media preparation; such as video clips, photography, text formats and advertising content that are consistent with the consumer's reception behaviour. It also includes the selection of online marketing channels that are highly effective in selling and suitable for customers in Thailand such as shopee, order form online, Facebook, Instagram, Line, etc.

3. Assistants (A), government agencies and private sectors or educational institutions with expertise in digital technology and innovation, including online marketing, have become mentors to give advice and skills in various fields. For example; business smartphone training which requires learning of various functionalities, helping develop digital innovation for entrepreneurs, helping to start a group or create a network, marketing network, and commercial photography and video, etc.

4. Reviewer & Influencer (R), recommending a product by a user of a product or service, or taking a picture of a customer by word of mouth, or presenting through social media is the most effective way of public relations. This will result in rapid and immediate dissemination of information such as only having customers or service recipients, or even business owners themselves can take pictures, shoot videos and share that information online. Even broadcasting via Face book live, it can communicate and distribute information about products and services to customers immediately. However, one of the important things to consider is to maintain the standard of products and services. This is to enable reviewers or photographers to present stories that have a positive impact on the business.

5. Technology Digital (T), promoting the use of technology and digital innovations in business management such as computerised raw material management, the use of digital innovation technology as a medium for trading and exchanging products and services such as page creation, online marketing content, linking to the online

marketplace platform, offering shop and product information, online trading, searching for new information and knowledge, etc. This will make running agribusiness online with convenience, help to reduce costs and expenses. Implementation of the aforementioned 5 elements, which are related and linked in a way of integration holistic. Providing support from assistant agencies to enable entrepreneurs to have the potential to operate their businesses effectively. The products obtained from the SMART Farmers Model can be used to formulate a strategic plan and an action plan to lead to clear concrete action. This will enable farmers to truly adopt digital innovation technology to enhance their business potential.

Step 3: Product, using the form of online marketing channels, which include Facebook, Instagram, Line, Order form online, shopee to test sales of vegetables for processing work. It represents driving business systems in applying online marketing channels for safe vegetable by developing innovations to add value to activities in the vegetable supply chain. Through the management of information and a variety of functions, including a traceability process of online marketing channels to achieve optimisation. Correspond to the concept of Timmers (1999) says: online marketing is a technology that has the potential to effectively expand the market to consumers at low cost. It can explain the pattern for the development of online marketing channels for safe vegetable in Thailand, detailed in Figure 4. And show example of marketing channel such as Facebook, Instagram, line, shopee and online order from in Figure 5-9.
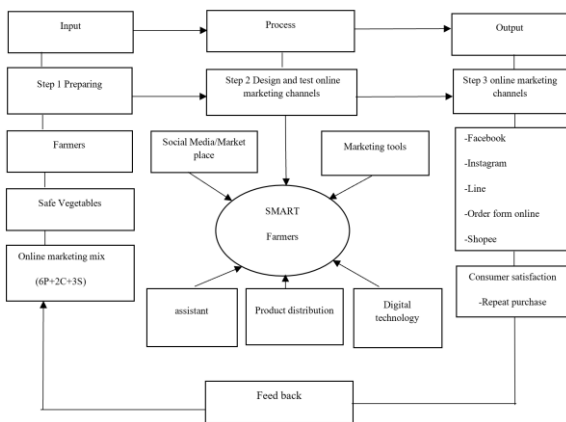
Figure 4 Format of online marketing channel by application of eMICA format
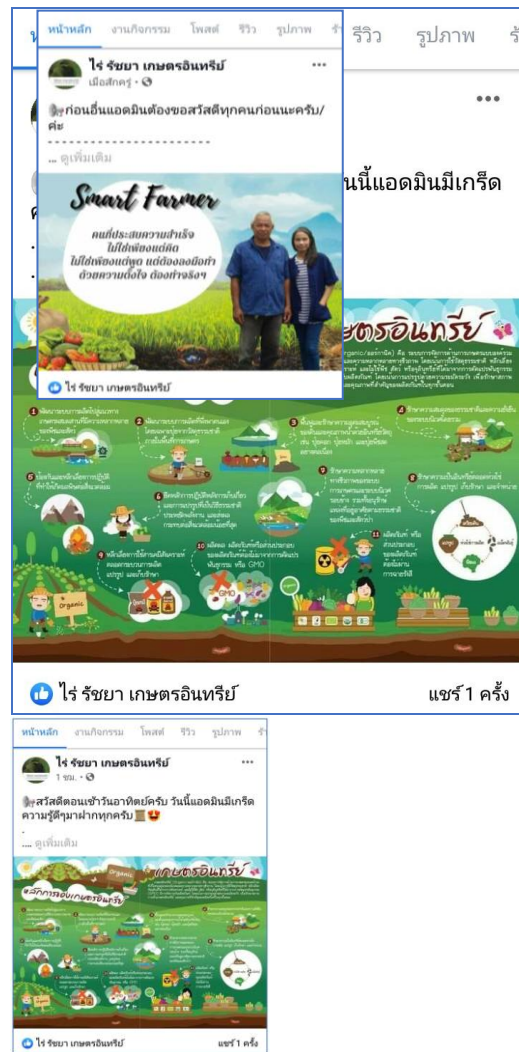
Figure 5 Example of marketing channels on Facebook
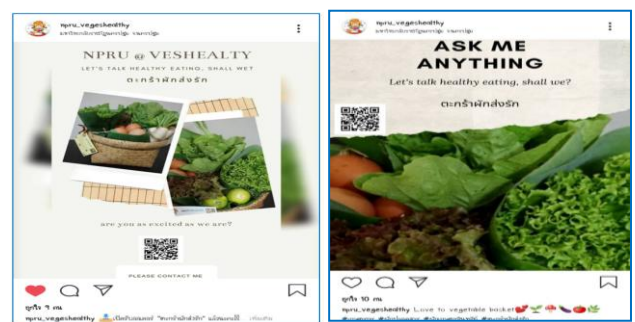
Figure 6 Example of marketing channels on Instagram

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Figure 7 Example of marketing channels on line

Figure 8 Example of marketing channels on shopee

Figure 9 Example of marketing channels on online order from.
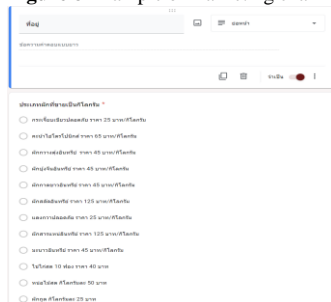
Online marketing channel efficiency for safe vegetable in Thailand

From the experiment of selling safe vegetable through online marketing channels in Thailand found that farmers had online marketing channels in order of sales: 16 Facebook users, 5 Instagram accounts, 7 online orders, and 2 Shopee users. This research by measuring the effectiveness of 3 aspects; 1) The quality of information in online marketing channels that are effective in providing information such as communication, content and completeness, found that 39% of Facebook followed, 33% of online order form, next to Line 12%, Instagram and Shopee 10 percent and 6 percent, respectively. 2) The quality of the system of use of online marketing channels found that the results of the experiment are sold through online marketing channels, when comparing the best performance results as follows; Facebook is the most accessible channel for customers at 78.23 percent, followed by Instagram at 10.39 percent, Shopee at 6.76 percent, Line and online order form at 3.11% and 1.51% respectively. The most revenue-generating online marketing channel was Facebook at 68.15 percent, followed by order from online at 15.66 percent, followed by Instagram at 10.32 percent and Line at 5.98 percent. The most repurchases were online order form at 60 percent, followed by Line at 16 percent, followed by Instagram at 14 percent and Facebook at 10 percent. The most user-friendly online marketing channel was Facebook at 72%, followed by Line at 20%, Instagram at 3%, online order form at 3% and Shopee at 2%. The highest sales effectiveness of online marketing channels, such as interactions, product presentations, and closing sales was Facebook at 45 percent, followed by online order form at 35 percent, followed by Line at 10 percent, Instagram at 7 percent and Shopee at 3 percent. The costs of selling through online marketing channels such as time for sale, administrative expenses, internet expenses, advertising expenses, there is a similar proportion of expenses. The highest was Facebook, Shopee, Line, Instagram and online order form at 26, 25,23,15,11 percent respectively. 3) Online marketing channels that affect individuals found that Facebook was at 66 percent, followed by Line at 14 percent, followed by Instagram at 8 percent, Shopee 4 at percent, and online order from at 2 percent. The detail can be show from Figure 10-17

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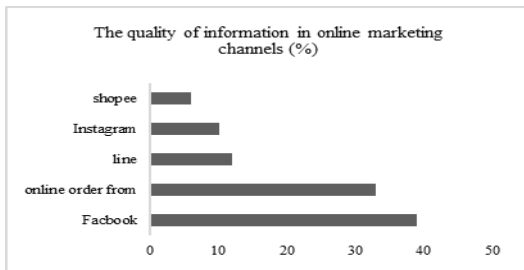
Figure 10 The quality of information in online marketing channels.

Figure 11 The quality of the system of use of online marketing channels results accessible channel for customers.

Figure 12 revenue-generating online marketing channels.

Figure 13 repurchases were online marketing channels.
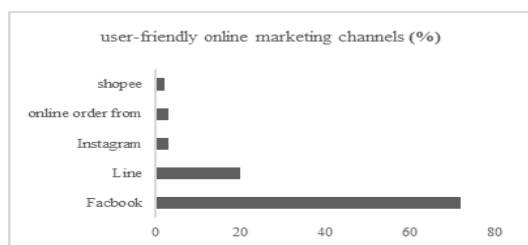
Figure 14 user-friendly online marketing channels.

Figure 15 Sales effectiveness of online marketing channels.

Figure 16 The cost of selling through online marketing channels.

Figure 17 online marketing channels that affect individuals.

Therefore, from the sales trial results, comparing the performance between Facebook, Instagram, Line, online order form and Shopee, it was found that Facebook has higher sales revenue than other online marketing channels. Because Facebook is an easily accessible marketing channel. The number of customers is greater than accessibility, sharing, inquiries, ordering. In addition, it provides the convenience of updating information and the farmer is very familiar with its use. The weakness of the Facebook channel is the invisible users, resulting in less product information or promotions posted to customers, including the relatively high ad rates. While, the online marketing channel on Instagram is suitable for customers in cities, health-conscious people with high purchasing power. The presentation should focus on taking beautiful pictures that attract attention. Providing additional information, rather than selling products, creates a positive image, generating positive feedback from customers, and in this channel there are no visibility blocking and high ad rates issues. However, there are restrictions on the use of Instagram, there is still a specific use of the group. However, there are restrictions on the use of Instagram, there is still a specific use of the group. Online marketing channels through Line have a specific style of communication with individual customers. It has a personal marketing style. Line marketing is often used in conjunction with Facebook or

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Instagram. In the case of using most of the LINE channels, they will trade with each other and build trust, resulting in repurchases. Online marketing channels through order form online are the same as Line, but there is a difference in the resolution of providing product information. Also able to collect information to process the trading systematically. Because it uses the Google form function to make orders that can be sent directly to the customer for use in conjunction with other online channels as well. This method maximizes repurchases. It can be managed by itself and can be kept confidential. This system can support financial transactions with high security. Lastly, selling through the Market Place platform on Shopee, is the only platform that allows vegetables to be sold through online marketing channels, which are unsuccessful channels for sales. Due to the limitation of the short-lived product (vegetables). Making it necessary to be careful in transportation. Selling through this channel, buyers are skeptical of sellers as they are difficult to verify their identity and are more difficult to process because of trading and financial activities. This is in line with the study of the Thai e-Commerce Association (2018), which discusses the benefits of online marketing as a high potential channel for doing business. It can trade 24 hours a day, sell products all over the world, stay up to date, two-way communication, low operating costs. Also technology helps to make the product presentation attractive. It helps consumers to make purchasing decisions quickly. The key issue in creating an online marketing system for safe vegetable farmers must be participation. Since the requirement identification process and the design process, stakeholders in the safety vegetable industry must share their opinions and provide feedback when it comes to form an online marketing channel for safe vegetable. It is then tested with the consumers about the behaviour and the satisfaction of using it for improvement by application in conjunction with the Extended Model of Internet Commerce Adoption (eMICA). This includes quality inputs and completeness of information, processes, system quality to create farmers who can use online marketing channels and achieve the SMART Farmers Model. Productivity is a quality online marketing channel. Serving customer needs and generating repurchases. All of the elements above represent an effective form of online marketing for safe vegetable in Thailand.

CONCLUSION

This study helps to expand the scope of the development of new online marketing channels. This is due to the driving of the objective of developing potential, the ability to apply technology to increase the market for farmers in Thailand. However, there is a low limit on repurchase due to the relatively high number of competitors on Facebook channels. Including problems caused by blocking visibility and high ad rates. The online marketing channel suitable for customers in cities with high purchasing power is Instagram. The presentation style should focus on beautiful images, compelling content. The online marketing channels that should be used together to create the most effective sales are Facebook, Line and order form online, as this will combine the strengths of each tool. Facebook will focus on communicating and distributing information in a wide area. When customers receive information and they are interested, they will use private channels such as Messenger and Line to contact us for

details, which will lead to purchasing decisions. The ideal way to repurchase is order form online, which adds convenience, systematic functionality and easy monitoring. Findings from the research that shipping, packaging, and consumer behaviour are emerging factors in the process of developing online marketing channels. This is because online merchandising relies on efficient shipping and distribution processes. Packaging that maintains the quality of vegetable through a logistics process that will reach the end consumer. In conjunction with the study of consumer behaviour in online marketing channels using the concept of online marketing mix 6P + 2C + 3S to develop an online marketing channel model, and combine with enhancing the potential of farmers using the SMART FARMERS model. These include social media or market place, marketing tools, assistant, product distribution, digital technology. This research found 5 strategies for selling through online marketing channels; 1) Beautiful pictures and complete information such as price, type of vegetables, weight, cultivation area, producer. 2) Reviewing and recommending each vegetable creates more interest to customers who want to consume more vegetables. 3) Establishing consistency in posting information in online marketing channels. Data should be updated 1-2 times a week to create a follow-up for customers. 4) Story creation in content presented on online platform (content marketing) such as knowledge of safe vegetables in the local area, simple method of growing safe vegetable. 5) Create participation in promotional activities such as accumulating points, applying for membership, receiving privileges. Summarise the main findings of this study, confirm the hypothesis that many farmers or entrepreneurs in Thailand do not take online marketing channels seriously and maximize their benefits. The results of this study understand the fundamental changes in customer behaviour and online marketing activities that are suitable for which target audience and what types of products. Including digital transformation trends that are important to online performance (Simmons, et al., 2007). Future research approach is to expand the scope of studies testing online marketing channels to other agricultural products. As for the online marketing model, it is a future proactive marketing model that is rapidly changing through traditional trading. Everyone must keep pace with the change to gain a competitive advantage. Also more accurate target reach, interact directly with customers and receive real-time feedback to get accurate answers, be the best to meet the needs of customers. Effective marketing is always a key component of any business success.

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Model of Participative Academic Administration for Buddhist Temple Charity Schools

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Abstract— The objectives of this research were 1) to study problems of participative academic administration for Buddhist Temple Charity Schools, 2) to develop a participative academic administration model for Buddhist Temple Charity Schools, and 3) to propose a participative academic administration model for Buddhist Temple Charity Schools. Mixed methods research was designed. In qualitative research, data were collected by in-depth interviews from 5 school administrators and from focus group discussion with 10 experts. The research tools were interview form and questions for focus group discussion, and data was analyzed by content analysis. In quantitative research, data were collected by using questionnaires from 381 teachers and 115 school administrators by multistage randomization. Data were analyzed using descriptive statistic consisted of percentage, frequency, mean, standard deviation and PNI$_{Modified}$ of needs assessment. Results indicated that 1) problems of participative academic administration for Buddhist Temple Charity Schools in all 5 aspects has shown the suitability at a high level. 2) Development of a participative academic administration model for Buddhist Temple Charity Schools consisted of 1) curriculum development by managing teaching and learning in accordance with core curriculum, 2) teaching and learning management by arranging to encourage learners to do their own actions for students to think critically, 3) development and use of innovative media and educational technology by encouraging learners participate in activities and explore the need for courses, 4) educational supervision by organizing a teacher meeting before visiting students' homes and always evaluate the results of supervision, and 5) learning assessment and the transfer of grades according to the actual situation without bias. 3) A participative academic administration model for Buddhist Temple Charity Schools conducted the curriculum with the core curriculum, focus on students taking action and taking part in activities, encourage supervision, and evaluating results according to activities.

Index Terms— *Participative Academic Administration, Buddhist Temple Charity Schools*

I. INTRODUCTION

Changes according to the social conditions, the world in the future, which will be the characteristics of the world, the urbanization, the individuality the world of environment leading to sustainable development [1] has transformed the education system from the past to the present that is moving across the globalization industry as education that organizes a new learning system for students to grow. To progress, develop independently of oneself full potential, resulting in the ability of the learners, which is the introduction of various technological advancements [2] from the state of the problem and the changes that have caused the direction and trend of the Thai education system must change including government policies, budget allocation. The lack of educational resources is increasing arrangement of teaching and learning processes for educational institutions, law related to education, media and innovation [3].

Education is very important to all our lives on this planet, and it is something that everyone seeks knowledge to use in life, work and create success in all of our lives. We cannot deny that education influences today's global society. People are actively seeking courses, institutions or landmarks, harvesting their knowledge very seriously, and they are also expected to discover their identity by studying in that field or course. The global system is changing rapidly. Globalization has influenced many aspects of society. Not unless the educational system is adapted to the changing of the world society. To give rise to modern knowledge and consistent with the students and also help to attract more interested people to study and apply knowledge to benefit further which the future trend of Thai education found Thais have a higher average level of education while the disparity in educational opportunities will decrease. People have more opportunities to receive quality educational services, but there is an increase in quality gaps in education management, more educational opportunities for working people more entry into vocational education non-formal education plays a role [4].

Currently, academic administration has both educational quality assurance criteria and the tenth edition of the National Economic and Social Development Plan, and

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education management is a shared learning experience between teachers and school administrators between educational institutions in all parts of society. Community and other stakeholders join together in providing education for their children in response to the needs of learners, educational administration in an educational institution or school, academic work is an important task, and it is the main task that has to provide opportunities for directly involved persons, namely teachers, to be involved in education. Administration of the Ministry of Education has announced the basic education curriculum, BE 2544, and the major problems of educational administration are centralization of administrative unity lack of efficiency in education management to meet the specified standards lack of participation of people, families, communities and social institutions, lack of systematic and continuous policy development, education as commander and to be an educational leader in schools and in the local community. Both in knowledge. It is also a study based on electronics, links, networks, establishment plays, a greater role. Civil society has become more involved and decentralized to local government organizations. Basic Education B.E. 2544 [5], which is the core curriculum of the country, aims to improve the quality of learners to be able to live properly can be happy on the basis of Thai and international by stipulating the learning standards in the eight subjects in which the educational institution must apply the subject matter and the learning standard to the formulation of the educational institution's curriculum to suit the local and the needs of the learners for this reason, academic administration is one of the most important functions of school administration or school administration. Because academic is an important goal that is directly related to learning; academic administration is a work that involves all kinds of activities in an educational institution or school to perform and develop teaching and learning to be effective and efficient as possible individuals are closely involved in promoting academics in schools: administrators, teachers, school directors, organization groups and school parents to perform a task. Administrators have many functions and an academic assistant is required to perform them.

Various subject groups, faculties and academic administration are in an school administrators since academic administration involves all kinds of activities in an educational institution especially about improving the quality of teaching and learning, which is the primary objective of an institution, it indicates the success and competence of the administrators [6].

Cooperative management is a method that increases the efficiency and effectiveness of work can be used at all levels. The main principle must be considered who gives how to get involved how to get involved, how much, at what time? Popular issues of engagement that do not really allow involvement by stakeholders are: to take part in just superficial or formatted participation for example, to acknowledge Attended the meeting but did not give an opportunity to express opinions but did not accept. [7] It is consistent with the research results [8] the relationship between participatory management and academic work has been studied. It was found that the participatory management of educational institutions under the Kanchanaburi Primary Educational Service Area Office 3 had a high positive relationship with all of them with the academic work of the educational institutes. Those involved in creating and solving problems which is related to academic work, which is an important work of educational institutions. That is, the administration is related to academic work, meaning that if there is how much more participatory management will do? To make the academic work of the school more efficient and consistent with the research results of [9] have studied the relationship of making teamwork and the effectiveness of academic administration of schools under Nakhon Ratchasima Provincial Administrative Organization was found that the academic administration of the school administrators Head of Academic Affairs Group Leader Teachers and personnel of all parties jointly analyze and create school course. There is a training workshop to educate and create a clear understanding together. In addition, the school has an evaluation of the teaching and learning results and the equivalent of the transfer of grades according to clear rules and regulations, and teachers have developed teaching materials to be up-to-date, suitable for learners' learning, thus making academic administration effective.

Temple Charity School in Buddhism formerly known as Rajasthan School of the temple was formed according to the Ministry of Education regulations. Regarding the Rat School of the Temple B.E. 2488, the charity school of the temple in Buddhism has always developed operational development, but since in the beginning are subsidized like other private schools and unable to collect tuition fees from parents of students caused by the parents of 95% of students being poor, some schools have to dissolve their businesses and some have transferred their businesses to the government. The National Education Act of 1977, therefore, added a volume education development policy that "will promote the organization of a charitable public school more especially" [10].

The establishment of a temple charity school in Buddhism help the community in education and spread religious teachings to Thai youth provide education for non-profit charities aimed at helping poor children and disadvantaged children in education aiming to cultivate Thai youth. A virtuous person ethical and academic excellence The Buddhist temple charity school is a private school owned by the temple, and a pastor is a licensee by position school administration takes the form of a school board of directors. Free education management without collecting

tuition fees the state subsidizes 100% of the living expenses [11]. It can be seen that the temple charity school in Buddhism, the administration of education, truly aims to help the development of children and youth of the nation.

Since the National Education Act B.E. 2542 has set the principles of administration and management of education of private schools to be a juristic person and have a school board of directors in order to manage and manage education in private schools to be independent by supervising and following up the assessment of educational quality and standards as well as for government education, the Ministry of Education has therefore revised the Private School Act B.E. 2542 to be appropriate and in line with the National Education Act B.E. 2542.

From the background and importance of the problems mentioned above. Hence, there is great interest to develop the administration of the temple charity school in Buddhism. To enable the implementation of academic administration with participation as knowledge management into practice, the temple charity school in Buddhism that participatory knowledge management work was performed in the temple charity school in Buddhism. What are the conditions, problems, obstacles and needs? The results of this research can be used as information for planning, improving and developing knowledge management into practice in the temple charity school in Buddhism. Towards the development of education management to be more efficient, reliable is suitable and it is more consistent with the context and actual situation of the temple charity school in the Southern Buddhism, which is of great importance, which can be used as a basis for planning, policy-making as well as educational reform for development. Study for quality strengthened and in line with international standards and can learn strengths and weaknesses. The success of the nations that can raise the level of competitiveness. In turn, it can reflect the educational potential of Thailand from the perspective of the international stage. As a result, it was able to find ways to properly stimulate and increase the competitiveness of education and have a direction for the development of new knowledge to create techniques, methods and applications for sustainability in the future.

II. RESEARCH OBJECTIVES

The objectives of this research were 1) to study problems of participative academic administration for Buddhist Temple Charity Schools, 2) to develop a participative academic administration model for Buddhist Temple Charity Schools, and 3) to propose a participative academic administration model for Buddhist Temple Charity Schools.

III. RESEARCH METHOD

Mixed methods research was designed. In qualitative research, data were collected by in-depth interviews from 5

school administrators and from focus group discussion with 10 experts. The research tools were interview form and questions for focus group discussion, and data was analyzed by content analysis. In quantitative research, data were collected by using questionnaires from 381 teachers and 115 school administrators by multistage randomization. Data were analyzed using descriptive statistic consisted of percentage, frequency, mean, standard deviation and $PNI_{Modified}$ of needs assessment.

A model of academic management for a Buddhist Monastery Charity School was designed by using mixed methods research by analyzing data from documents, textbooks, statistical data, research reports. Reports of various departments academic articles, thesis, as well as relevant research work both at home and abroad, and a formal in-depth interview from 5 school administrators and from focus group discussion with 10 experts. The research tools were interview form and questions for focus group discussion, and data was analyzed by content analysis. In quantitative research, data were collected by using questionnaires from 381 teachers and 115 school administrators by multistage randomization. Data were analyzed using descriptive statistic consisted of percentage, frequency, mean, standard deviation and $PNI_{Modified}$ of needs assessment.

IV. RESEARCH FINDINGS

Research study, the model of the participatory academic management of Buddhist Monastery Charity Schools, the objective of 1) to study the problem of participatory academic administration of the temple charity school in Buddhism 2) to develop a model of participatory academic administration of the temple charity school in Buddhism. 3) To present the model of the participatory academic administration of the temple charity school in Buddhism. The research results are as follows:

A. The results of the research on the condition, problem, administrative skills, participation in the temple charity school in Buddhism.

The state of problems in the administration of the temple charity school in Buddhism.

1. Problems in educational institution curriculum development lack of support and to promote or educate teachers about the curriculum management.

2. Problems in the development of learning processes lack of development of academic administration in learning process development where teachers and communities are involved in setting goals of curriculum implementation in teaching and learning activities. The teachers should organize learning activities that are student-centered to practice the skills of thinking process in dealing with situations applying, cultivate morality, and desirable features. The development approach is that teachers should

be trained to educate workshops. Teaching ability, using new techniques, teaching and learning are organized to meet the needs of learners provide an environment and atmosphere conducive to teaching and learning.

3. Problems in evaluating results, evaluating, and comparing grades transfer lack of development of academic administration in the evaluation, and transfer of grades that should prepare a plan for evaluating and evaluating each course in accordance with educational standards, and should be able to transfer knowledge, skills, experience and grades from other institutions.

4. Problems in educational supervision lack of academic administration development in the field of educational supervision, administrators should provide knowledge about supervision for teachers to understand. This will generate acceptance and follow the supervisor's advice as well as a supervisor to provide advice and knowledge at the school or administrators should create an academic network outside the school to exchange knowledge in organizing the educational supervision system with other educational institutions, encourage teachers to supervise each other, and provide a concrete internal supervision plan can be put into practice.

5. Problems in the development of media, innovation, and technology for education lack of academic administration development in the development of innovative media and technology for education, that is, the school should improve research in order to innovate the use of media and technology for teaching and learning activities. There is a survey of the needs of courses, teaching materials practice material for students and procure to purchase on demand.

Guidelines for solving the problem of school charity participation for the temple in Buddhism.

1. Guidelines for the development of academic administration Development of learning processes That is, the school administrators should promote or educate teachers about the management of the curriculum.

2. Guidelines for the development of academic administration in the development of learning processes are teachers and communities involved in setting goals of the curriculum was used in teaching and learning activities. The teachers should organize learning activities that are student-centered to practice the skills of thinking process in dealing with situations applying cultivate morality and desirable features. The development approach is that teachers should be trained to educate workshops. Teaching, ability, using new techniques, teaching and learning are organized to meet the needs of learners provide an environment and atmosphere conducive to teaching and learning.

3. Guidelines for the development of academic administration regarding evaluation, evaluation and transfer of grades that should have a plan for evaluating and

evaluating each course in accordance with educational standards and should be able to transfer knowledge, skills, experience and grades from other institutions.

4. Guidelines for the development of academic administration in the field of educational supervision, administrators should provide knowledge about supervision for teachers to understand. This will generate acceptance and follow the supervisor's advice as well as a supervisor to provide advice and knowledge at the school or administrators should create an academic network outside the school to exchange knowledge in organizing the educational supervision system with other educational institutions encourage teachers to supervise each other, and provide a concrete internal supervision plan can be put into practice.

5. Guidelines for the development of academic administration in the development of innovative media and technology for education, namely the school should improve research in order to invent the use of media and technology for teaching and learning activities. There is a survey of the needs of courses, teaching materials practice material for students and procure to purchase on demand.

B. Summary of the research results of the development of a model for the development of academic administration of the temple charity school in Buddhism.

When considering the number of school administrators under the Office of the Secondary Education Service Area, the number of 329 questionnaires were classified by gender as the most male and female by age 50 years, respectively, classified by educational background. There is the largest number of master's degrees, a bachelor's degree is a low percentage and a doctorate degree is classified by position. Director of Education. The largest number Deputy Director of Educational Institutions Head of Department and Acting Representative of the Director of Education, respectively, classified by more than 15 years of work experience, the highest number, 11-15 years experience, 5-10 years experience and less than 5 years experience.

The participatory academic management model for Buddhist temple charity schools in general was at high level. When considering each side, the side with the highest average at the highest level, it was useful, accuracy and at a large level, including suitability and the possibilities respectively.

1. Principles of a participatory academic administration model for Buddhist temple charity schools when considering each side, the side with the highest average at the highest level, it was useful, accuracy, suitability, and the areas with the lowest average at the high level were probability.

2. Objectives of the Cooperative Academic Management Model for Buddhist Monastery Charity Schools when considering each side, the side with the highest average at the highest level, it was useful, accuracy, possibility aspect,

and the areas with the lowest average at the high level were suitability.

3. The process of developing a participatory academic administration model for Buddhist temple charity schools, considering each aspect, the side with the highest average at the highest level, it was useful, accuracy, suitability, and the areas with the lowest average at the high level were probability.

4. Adopting a participatory academic management model for Buddhist temple charity schools, considering each aspect. The side with the highest average at the highest level, including accuracy, useful side, possibility aspect, and the areas with the lowest average at the high level were suitability.

5. Conditions for success of the Cooperative Academic Administration Model for Buddhist Monastery Charity Schools when considering each side, the side with the highest average at the highest level, including accuracy, useful side, suitability and the areas with the lowest average at the high level were probability.

When considering each aspect of the three components of a participatory academic management model for Buddhist temple charity schools obtained the analysis of the pattern inspection as follows:

A Model of Academic Management for a Buddhist Monastery Charity School Principles of a participatory academic administration model for Buddhist temple charity schools, when considered individually, the side with the highest average at the highest level, it was useful, accuracy suitability, and the areas with the lowest average at the high level were probability.

1. Realize the importance of academic administration with participation in educational institutions where participation creates a shared feeling of responsibility. Everyone is a part of the organization, reducing the burden of the management when considering each side, the side with the highest average at the highest level, it was useful. The accuracy of the suitability and the areas with the lowest average at the high level were probability

2. Participate in academic administration by using a participatory academic administration model in an educational institution when considering each side, the side with the highest average at the highest level, it was useful, accuracy, suitability, and the areas with the lowest average at the high level were probability.

3. The school administrators have leadership, interest, and support facilitate both budget personnel location and various media devices when considering each aspect, the side with the highest average at the highest level, it was useful, accuracy, suitability, and the areas with the lowest average at the high level were probability.

C. The model by distributing questionnaires and presenting the participatory academic administration model for the temple charity school in Buddhism.

When considering the number of school administrators, the Buddhist temple charity schools in Buddhism that answered the questionnaires were classified by gender as male, the most by age, the school administrators aged between 41-50 years the most, classified by master's degree, the most by position director of most educational institutions.

The development of the participatory academic management model for the temple charity school in Buddhism was at a high level overall, when considering each side, the side with the highest average, the highest levels include the development and use of educational technology, the evaluation, and the implementation of academic transfer. Development of educational institutions curriculum and the management of teaching and learning in educational institutions, respectively.

Development Process Development of a participatory academic management model for the temple charity school in Buddhism, when considering each side, the side with the highest average at the highest level, it was useful, accuracy, and a large extent, suitability, and the areas with the lowest average at the high level were probability.

Elements of the Development of the Participatory Academic Administration Model for the Temple Charity School in Buddhism, when considering each side, the side with the highest average at the highest level, it was useful, accuracy, suitability, and the areas with the lowest average at the high level were probability.

Development Process Development of Participatory Academic Management Model for Monastery Charity School in Buddhism, when considering each side, the side with the highest average at the highest level, it was useful, accuracy, suitability, and the areas with the lowest average at the high level were probability.

Apply the pattern When considering each side, the side with the highest average at the highest level, including accuracy, usefulness, possibility aspect and the areas with the lowest average at the high level were suitability.

1. Preparation when considering individual aspects, the side with the highest average at the highest level, including accuracy, usefulness, possibility aspect, and the areas with the lowest average at the high level were suitability.

2. Operations when considering each aspect, the side with the highest average at the highest level, including accuracy, usefulness, possibility aspect, and the areas with the lowest average at the high level were suitability.

3. Evaluation, when considering each aspect, the side with the highest average at the highest level, including accuracy, usefulness, possibility aspect, and the areas with the lowest average at the high level were suitability.

Conditions for success when considering each side, the side with the highest average at the highest level, including accuracy, usefulness, suitability, and the areas with the lowest average at the high level were probability.

1. Apply according to the context of the educational institution when considering each side, the side with the highest average at the highest level, including accuracy, usefulness, suitability, and the areas with the lowest average at the high level were probability.

2. Cooperation of School Administrators Teacher when considering each side, the side with the highest average at the highest level, including accuracy, usefulness, possibility aspect, and the areas with the lowest average at the high level were suitability.

V. DISCUSSIONS

From general information of school administrators and teachers in schools, the temple's charity school in Buddhism, the respondents found that the number of female teachers aged 41-50 years and had a master's degree. There are opinions that are consistent overall that the state of the problem of academic administration participation for the temple charity school in Buddhism. There is a need for the development of participatory academic administration, namely the development of the educational institution curriculum. State of Problems with needs necessities in Academic Management in a Buddhist Temple Charity School in Buddhism is the most important need to be developed from research relevant domestic research aimed at spreading out to educational institutions as much as possible with the intention of enabling educational institutions to operate independently, flexibly, and respond to the needs of learners, educational institutions, local communities and participation. From all stakeholders, this will be an important factor to strengthen the school administration and management can develop curriculum and learning processes as well as the evaluation of results including the measurement of factors supporting the quality development of students in the local community effectively and efficiently. From the importance of the aforementioned academic administration, school administrators are therefore very necessary to take care of academic administration is special. Resulting in the school administrators academic supervisors and teachers have opinions on the conditions of participation in academic work of the school, also included or integrated into eight learning subjects and included in learner development activities, including guidance activities student activities, and service activities, policy-related departments still focus on academic work. Stakeholders therefore, have to cooperate in preparing children and youth to have overall skills at a high level. This is consistent with the research of Boonperm Sornpakdee [12] research on the development of academic administration models by adhering

to the principle of working as a team Wat Khlong Pho Municipal School Uttaradit Municipality found that the results of the experiments were based on academic administration models by adhering to the principle of working as a team Wat Khlong Pho Municipal School Uttaradit Municipality at a high level.

Problems in academic administration with participation in educational institutions, Temple Charity School in Buddhism overall is moderate, and when considering each side, it was found that all aspects had problems at a moderate level as well. This was consistent with the research of Rachen Asawet. [13] The study of the condition and problems of the academic administration of the municipal schools in the school district 6 found that the state and the academic administration problems of the municipal schools. In the school district 6 was at a moderate level and when comparing the condition and problems of academic administration of the municipal school according to the opinions of municipal education administrators and the opinions of municipal teacher staff were found to be significantly different at the .05 level in all areas, namely curriculum work, work on teaching and learning activities, work on the evaluation, evaluation of teaching, learning, work on educational supervision, and Atipong Wongcholchaikul [14] studied problems and approaches to management development. Academic work of basic education under the office area, the study of Chon Buri District 1 found that the problem of academic administration of the basic educational institutions under the Chonburi Educational Service Area Office, District 1, overall and each side were at a moderate level.

Presentation of the model by distributing questionnaires and presenting the participatory academic administration model for the temple charity school in Buddhism. The researcher examined the model by distributing questionnaires, revising and presenting the model. From examining the model through the distribution of questionnaires and presenting the participatory academic administration model for the Buddhist temple charity school. It was found that the model was by distributing questionnaires and presenting the participatory academic administration model for the temple charity school in Buddhism. The overall picture is at a high level. Usefulness at the greatest level showed that the model by distributing questionnaires and presenting the participatory academic administration model for the temple charity school in Buddhism. It is consistent with the needs of participatory management is suitable compliant. The results of examining the five components of the model were: 1) Principles of participatory administration; 2) Objectives of the development of the model administration. 3) The process of developing a participatory academic administration model for the temple charity school in Buddhism 4) Implementing a participatory academic administration model for the temple

charity school in Buddhism, 5) conditions for success were found.

Principles for the Development of the Participatory Academic Management Model for Monastery Charity Schools in Buddhism, usefulness, accuracy, suitability at the highest level possibility aspect very level show that the principles are consistent with the needs of life skills development is suitable compliant causing the acceptance of school administrators.

Objectives of the Development of the Participatory Academic Administration Model for the Buddhist Monastery Charity School, usefulness, accuracy at the highest level possibility aspect, suitability very level show that the purpose is consistent with the need to develop a participatory academic administration model for the temple charity school in Buddhism is suitable compliant. It can be used to develop, improve, and promote the implementation of a project to develop a participatory academic management model for the temple charity school in Buddhism.

VI. BODY OF KNOWLEDGE FROM RESEARCH

Participatory academic administration model consists of: 1. Components of life skills 2. The process of developing a participatory academic management model.

1 components of participatory academic administration are:

1. Trust means the trust of one another, associates or educational personnel will be able to perform their work successfully if they are trusted by the school administrators. The timing of involving participants in academic administration should be controlled by the school administrator. All workloads or decisions, school administrators will give as many opportunities as possible. School administrators who empower and trust their colleagues

2. Commitment to perform (commitment) means a person be it an administrator of an educational institution or educational personnel. Need a commitment to practice school administrators should provide support, assistance and training to their practitioners. Educational personnel must have the opportunity to participate in decision-making with the school administrators

3. Set goals and objectives together, meaning conflict is a primary need or goals of participatory management conflict is inevitable when humans work together, therefore, setting common goals and objectives between the school administrators and educational personnel, including jointly improving and developing organizational goals inevitably will eliminate any conflicts that arise.

4. Independence with responsibility in work (autonomy) is a condition that is independent of responsibility in work. Authority and reporting capabilities for individual tasks

operators need independence in their operational responsibilities in making decisions in their own work. This will give them full dedication and willingness to perform their work full of responsibility that he has received.

2. Participation process

Step 1 Participation in decision-making: in the process of making decisions, the first thing that must be done is to set needs and prioritize, then select the policies and people involved. An ongoing process that has to go on and on from the initial decision. Decision during planning process and decisions during the implementation of the plan.

Step 2 Participation in operations: It will be derived from the question of who will benefit the project and how it will be made available, for example: resource assistance administration and coordination of labor assistance or information, etc.

Step 3, Participating in benefit: with respect to that benefit, given the importance of quantitative and qualitative benefits, the distribution of benefits within the group must also be considered as well as the outcomes. It is the positive benefit and the negative consequences of a project that may be beneficial and harmful to individuals and society.

Step 4, Participation in the evaluation: participation in the evaluation is important to note that the views, preferences and expectations (views) can influence and change the behavior of people in different groups.

Fig. 1 Body of Knowledge from Research

VII. RECOMMENDATIONS

From the research results on "The Model of the Participatory Academic Administration for the Buddhist Monastery Charity School", the following recommendations.

A. Recommendations for applying research results

From the research results it was found that participatory academic administration model for temple charity schools in Buddhism. There are recommendations as follows:

1) Elements of the participatory academic administration for the Buddhist Monastery Charity School, there is an essential need for the development of management, such as in the application of the learner to develop participation in education management and development in educational institutions especially academic administration which is the main task of educational institutions.

2) Educational institutions should assess the performance according to the participatory academic administration model for the Buddhist temple charity school, regularly, and bring results for improvement and correction regularly.

B. Recommendations for further research

1) Should study the model of educational institution participation in other areas such as budget management, personnel, and general management.

2) The results from the application of the participatory academic administration in educational institutions should be used in educational institutions, educational institutions should promote the participation of academic administration in educational institutions.

3) The research study should be conducted by performing activities, projects or indicators guidelines for academic instructional management for educational institutions at different levels.

CONCLUSION

The conclusion of this research consisted of 1) the problem of participatory academic administration of the temple charity school in Buddhism in all 5 aspects was appropriate at a high level. 2) Development of a participatory academic administration model of the temple charity school in Buddhism consisted of 1) curriculum development by organizing teaching and learning according to the core curriculum, 2) teaching and learning management by allowing learners to practice by themselves in order for students to think critically, 3) development and use of innovative media and formal technology. The study encouraged learners to participate in activities and survey the curriculum requirements, 4) educational supervision by organizing teacher meetings before visiting the students' homes and evaluating the supervision at all times, and 5) assessing learning and comparing results study according to real situations without prejudice. 3) A participatory academic administration model for Buddhist temple charity schools, providing a curriculum with a core curriculum focusing on students to take action and participate in activities promoting supervision and assessment results by activity.

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Abstract—The purposes of this research article were 1) to study the educational status of Phrapariyattidhamma for the General Education Section in temples of Sangha Administration Region 1, 2) to study participation in educational administration of Phrapariyattidhamma for the General Education Section in Sangha Administration Region 1, and 3) to propose a model of in educational administration of Phrapariyattidhamma for the General Education Section in Sangha Administration Region 1. Mixed methods research was used for the design. In quantitative research, data was collected from 136 samples and was analyzed by using percentage, mean, standard deviation. Qualitative data was collected by interview 15 key informants and focus group discussion with 10 experts. Results indicated that 1) the educational status of Phrapariyattidhamma for the General Education Section in temples of Sangha Administration Region 1 showed that administrative conditions still did not conducive to development, lack funding or did not receive enough budget to manage the current condition, also depended on the abbot or a director with a position of governing the clergy. However, there was a tendency to use the participatory administration by controlling the administration of Phrapariyattidhamma for the General Education Section. 2) Participation in educational administration of Phrapariyattidhamma for the General Education Section in the Sangha Administration Region 1 consisted of 1) participation in awareness and community needs, 2) participation in organizing activities, 3) participation in decision-making and administrative efficiency, 4) participation in control and keep track of accuracy by integrating with Buddhist principles. 3) A model of in educational administration of Phrapariyattidhamma for the General Education Section in the Sangha Administration Region 1 consisted of 4 components which were 1) pleased to participate in planning (Chanta), 2) indefatigable action (Viriya), 3) correct and appropriate decision making (Jitta), and 4) follow-up and solve the problem (Vimangsa).

Index Terms—Model of Participation, Educational Administration, Sangha Administration Region 1

I. INTRODUCTION

Administration of Phrapariyattidhamma School will be successful which today must manage with participation by that management must consider the benefits that will occur, and as a result of the stakeholders, learners need to organize education in a systematic manner in the administration and management of education in order to achieve the goals of education requires professionalism of school administrators. It has a broad vision, competence, morality and ethics, is recognized and has intelligence, emotional intelligence, as well as adherence to professional management in accordance with higher education in 2 Buddhist universities and Sangha education is an alternative one that has youth or community

attention and parents support their children to come to study and encounter 2 problems in the Buddha's life.

The first issue is the education of the Sangha. It is an institution that trains the heirs to educate monks and novices that renewed Buddhism. The second issue is the educational disadvantage in the state education system to have an opportunity to receive education, educational administration, Phrapariyattidhamma School faced many problems, namely, educational problems. At present, in the educational system, the novice monks have studied many types of education, but on the other hand, there is no relationship at all, namely education. Phra Pariyatit is an independent education management, different from the monastic system and the state educational management. It causes confusion for

students. The Buddhist monks are novices as well as educators is a teacher involved in education, including the general public [1].

Management condition must know how to manage each party to participate in all parties academic work, HR and community were also involved. It is called proactive management. All parties work together to develop and manage the school to achieve its objectives with a management line organized and plan and propose systematically and has a policy of supervision and practice Monitoring and evaluation report for School Administrators is therefore an important person in the implementation of educational policy. If the administrators are knowledgeable and capable of conducting educational work successfully and quality according to the National Education Act. It is therefore necessary to rely on knowledge and ability to make the administration effective [2].

Achieve the goal of providing education for monks and novices who are citizens of the nation. It is the same as the general public, and therefore has the right to receive a basic education according to the constitution and the basic education program have studied with equal quality the state should support education, management system, education of the Buddha so that it is budgeted and have more quality in the future [3].

II. RESEARCH OBJECTIVES

The purposes of this research article were 1) to study the educational status of Phrapariyattidhamma for the General Education Section in temples of Sangha Administration Region 1, 2) to study participation in educational administration of Phrapariyattidhamma for the General Education Section in Sangha Administration Region 1, and 3) to propose a model of in educational administration of Phrapariyattidhamma for the General Education Section in Sangha Administration Region 1.

III. RESEARCH CONCEPTUAL FRAMEWORK

The researcher has set a conceptual framework to be consistent with the educational conditions, models of participatory Buddhist education administration as shown in Fig.1.
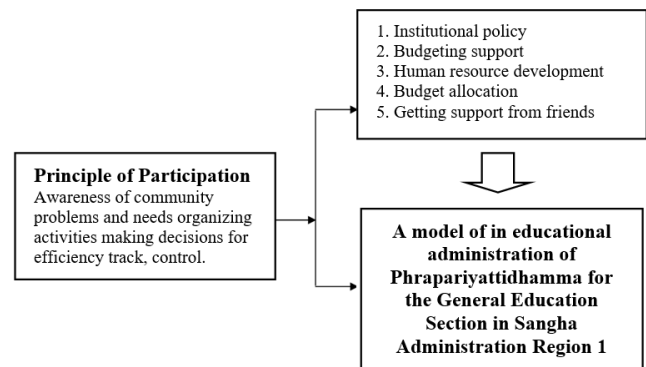
Fig. 1 Conceptual Framework

IV. RESEARCH METHOD

Mixed methods research was used for the design. In quantitative research, data was collected from 136 samples. Research tool was questionnaires and data were analyzed using descriptive statistics consisted of percentage, mean, standard deviation. Qualitative data was collected by interview 15 key informants and focus group discussion with 10 experts. Research instruments consisted of 1) interview form and issue for focus group discussion and data were analyzed by using content analysis.

V. RESEARCH FINDINGS

1. Educational status of the Ordinary Divisions for temples in the Sangha Area Region 1 should be involved 1) the management of participation in organizing activities, problem analysis, set goals, give feedback on the project planning process and interview results of condition of participatory management in organizing activities, 2) The condition of participation in decision making to be effective and can work to achieve goals participation in making effective decisions join in the implementation of the plan, 3) The condition of participation in control and monitoring can be used to analyze the conditions of participation in the control, follow up on joint audits and follow up on the implementation of the project or activity that meet goals and objectives [4].

2. Participation in the administration of Dhamma education, Department of General Education in the Sangha Administrative Area Region 1.

Administrators must study the school's information and the needs of the community that can the education management meet the needs of the learners? School problem awareness or the impact on the school and learners. A meeting to summarize the problems and prioritize school problems performance of duties. It is divided into divisions, responsibilities, and everyone fulfills their duties with

willingness and control, monitoring, and implementation of any ongoing school project or activity to achieve the goals set.

3. Propose a participatory religious administration education model for temples in Sangha Administrative Area Region 1.

From the study, the model of a participatory Buddhist education administration for temples in the Sangha Region 1 was: 1) perception of problems and the needs of the community are ambitious, that is, satisfaction as what they consider best that we human beings should have this as the first encouragement, 2) Participation in the management of participation in organizing activities with persistence. Perseverance means persistence and contact for a long time until success. This word also has the meaning of courage, 3) Deciding to be effective with Chitta means not taking it away from your own feelings, always keep that objective clearly in mind. This word fully integrates the meaning of the word concentration. 4) Monitoring control will benefit the most in managing the school to success.

VI. DISCUSSIONS

1. Educational status of the Dhamma in the General Department for temples in the Sangha Administrative Area Region 1 from the results of the study of the study condition of the Ordinary Divisions. For the temples in the Sangha Region 1, all 4 issues about participation in awareness educational thinking and community needs participation in organizing activities, participation in making effective decisions, participation in monitoring controls consistent with research of Phrakru Khemapiwut (Unchulit) [5] has researched "Development of Buddhist participatory administration for the administrators of the Buddhist Dhamma School, Dharma Department". The research found that the conditions of the participatory administration of the administrators of the Dhamma School of Dhamma Division were found that the administration of the school, led by the abbot, each school has the highest power. In addition, the school has authorized the headmaster and teachers. It is the father-to-child management system to participate in decision-making in organizing or improving the resource management system, make decisions on how to use limited resources to benefit the public, co-organize or improve in the development management system for efficiency and effectiveness, join in the implementation of the plan projects and activities to achieve the goals. There is an evaluation that the actions taken in accordance with the policy of Mae Kong Tham Sanam Luang By delegating the power to the abbot of each temple to proceed in the order of government with a network to support the administration of the school. The development of participatory administration of the administrators of the Dharma Study Center, Dharma Department consisted of 5 participatory processes thinking, study and research identify problems and causes, 2)

Participation in policy planning or project plans or activities, 3) Participation in decision-making in organizing or improving effective resource management system, 4) Participation in control and monitoring and evaluate the performance and bring the results back to benefit; and 5) participation in benefiting from development. The results of the evaluation of participatory management from the sample showed that the mean accuracy was at the highest level and usefulness, suitability and possibility Have a high level of mean respectively.

2. Participation in the administration of Dhamma education, Department of General Education in the Sangha Administrative Area Region 1.

Administrators must provide education by adhering to the regulations and policies of educational institutions by for the administration of Buddhist schools which is a direct study of the Sangha Should encourage monks novice to be educated, but the administration must administer the measure of participation between the community for efficiency and success. Resulting in justice, verifiable, in line with the research of Phra Worathanakorn Kitiyano (Kaewpila) [6], conducted research of "Development of educational administrative skills for Phrapariyatidhamma School administrators Department of General Education" The research found that current conditions, problems of administrative skills, Phrapariyattidhamma school the Department of General Studies found a lack of systematic administration and a lack of development to keep pace with the change, but the delegation of decision-making power was still dependent on the higher-ranking executive. The overall management is not clear, including the administration of the Sangha administration at various levels from the beginning to the upper level. Top-down command, temple and ecclesiastical education, lack of good managerial skills development. Development of educational administration skills for Phrapariyattidhamma school administrators. The general education department found that this possibility. The mean is at the highest level, and accuracy benefit and the suitability was at a high level, respectively. The process of developing educational administrative skills for Phrapariyattidhamma School administrators. The General Education Department consists of 5 sections.

1) The components of the educational institution administrator's skills in 5 areas.

2) The process for developing educational administrative skills in 5 areas.

3) the development of educational administrative skills in 5 areas.

4) Six aspects of educational institution administration

5) Five skill development activities

It is also found that the 3 principles of the Phrapapanikidharma make the school administrators an executive who meets the principles of Buddhism, namely, the foresight of work (Jakkuma), the expert in work

(Wituro), and the good interpersonal relationship, Aran Kaewthong concluded that from the research results, it was found that school administrator teacher community performance of educational institutions and school boards should be involved.

3. Propose a participatory religious administration education model for temples in Sangha Administrative Area Region 1.

Research results from the study of qualitative data by conducting interviews with management experts Analyze the consistency of categorize data in order of importance, study points and organize small group discussions to synthesize information and recommendations, develop quantitative research tools, to collect statistical data in which questionnaires were distributed statistical analysis confirming the patterns studied were:

1) The ambitious model is satisfaction, considered best for administrators, board members and communities to create morality to the management of perceptions of the community's problems and needs.

2) The pattern of persistence is persistence, continuous action until success, must have courage mixed with it by focusing on everyone in the organization Participate in organized activities.

3) The form of Chitta means not taking it away from your own feelings to make that objective clearly concentrate while performing your best and making effective decisions.

4) The model of Vimangsa means surveillance in cause and effect of success, control and follow up will be the most beneficial for the administration of the school to success. All 4 studies that were consistent with the research of Apichai Nuchueang [7] were researched on "Model of participation in school development of the basic education establishment committee", the model of participation in school development of the basic school board consists of 2 aspects: the role of the school board. It is the nature of the work of the school board together with the school, and the community consisted of 1) building cooperation with the community, 2) supporting the administration of the school, 3) participating in the operation qualifications of educational institution directors. It is the characteristics of individuals who will participate in the school development, consisting of (1) competence in duties, (2) characteristics of behavior, (3) satisfaction, (4) returns with appropriate assessment results possibility and helpful level [8].

VII. BODY OF KNOWLEDGE FROM RESEARCH
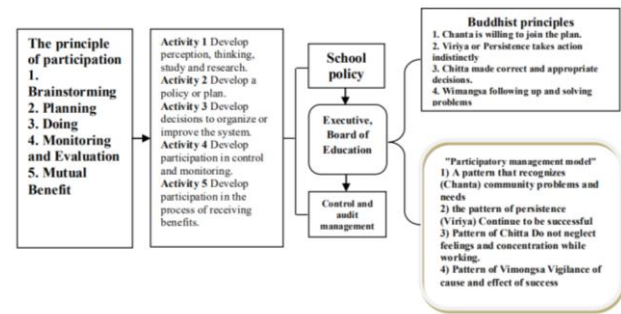
Fig. 2 A Model of Participation in Educational Administration of Phrapariyattidhamma for the General Education Section in Sangha Administration Region 1

VIII. RECOMMENDATIONS

A. Recommendations for Policy

1) Relevant agencies should promote personal factors by encouraging personnel to accept their talents and confident in your colleagues.

2) Relevant agencies should promote environmental factors in their work by promoting personnel to comply with regulations school regulations.

3) Relevant agencies should promote social factors, culture and psychology by promoting personnel to have operational safety, and create more welfare for personnel.

4) Relevant agencies should budget to support the construction of the physical environment of Phrapariyattidhamma School General education department such as media, office equipment, computer technology.

B. Recommendations for further research

1) The process of developing teacher expectations towards the Phrapariyattidhamma School administrators should be studied.

2) Should study strategies for the administration of the participatory Dhamma meditation for the temple.

3) The motivation model of personnel in performing work at Phrapariyattidhamma School should be studied in the Sangha Administrative Area Region 1.

CONCLUSION

Administrators should consider the administration of Phrapariyattidhamma School by considering the conditions used in the administration depending on the context of the Phrapariyattidhamma School, what kind of procedures will be used in the general department? Therefore, it will benefit the most from school administration to success. It may be used as an integrated school management guideline according to Buddhist principles and participatory management development.

1. Chanta, pleased with the management, co-thinking, and planning.

2. Viriya, perseverance, not discouraging in the undertaking of that business by taking tireless action on the problems and obstacles that arise.

3. Chitta, cares not to be engaged in such matters by making decisions together to follow the plan correctly and appropriately.

4. Vimangsa, must continue to work, the last four success ladders mentioned herein are the most important, because they are joint consideration, follow up on the work done and solve the problems that arise during work, work together to think, develop, improve, work better to benefit from joint management for success and sustainable development.

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Buddhist Integrated of Management for the Youth Training of Moral Camp in Nakhon Si Thammarat Province

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Abstract— This article has an objective to present the use of religious dimensions as a course for moral training camps. It is also intended to sharpen the minds of learners to use wisdom to know reasons and morality, including being conscious in the knowledge of media, technology in the era of globalization with high competition by allowing body and mind to know the value of morality, focusing on being a good person to improve society. In addition, the speakers have shown some good characteristics; for example, knowing how to work as a team; having the power and perseverance ; having collaboration; overcoming problems ; and eliminating obstacles and troubles together by using knowledge and competence which is a process to be applied to all types of work to their fullest potential. Also, the article has the objective of guiding the participants for some characteristics; for example, being honest and moral; being able to adapt to fit with others by not exerting power to oppress others but trying to keep yourself equal with others; knowing to love each other and share generosity ; however, it must be based on moderation, not too extravagant either. That activity must affect the lives of the youth in good practices and having good attitudes. This will create a connection, coordination, and good relationship in coexistence in society with the "understanding, reaching and developing" in the human truths to adapt behaviors to keep up with materialism by bringing the principles learned to improve physical and spiritual developments and be able to continue to live together happily.

Index Terms— Buddhist Integrated; Management; Moral Camp

I. INTRODUCTION

Developing youth through moral camps is one of the priorities of being an urgent solution to help protect young people from problems. It develops the youth with a Tri-Sikkha learning process to understand the connection between life and the world. It is also possible to see the connection of all things, instill morality etc. [1] As mentioned, that development is a self-development, therefore, the person must be a learner who can aware and seek out self-action, which emphasizes the life-long learning process. This is one of the key aspects of sustainable development that enables individuals to develop themselves continuously even in the midst of ever-changing situations,[2][3]

The National Economic and Social Development Plan No. 12 (2017-2021) has expected the Thai society to be strong and balanced. The society will meet the expected conditions providing that the people are qualified with morality, ethics , discipline, and also respect the law as well as having a sense of responsibility and public awareness. In addition, people in the society need to know how to rely on each other. The development of Thai society is to prepare the young people to become good adults in their future. However, according to a survey of data in the last five years, Thai society in the future is likely to lead to a collapse due to the current problems with Thai children and young people on a stage that requires immediate attention and affects mainly many children [4] by classifying the problems of

children and youth in Thailand into two groups: 1) Problems caused by poverty and congenital disadvantage or family consequences, or being abused by individuals or societies, and 2) Problems caused by deviant behavior ,for example, sexuality, alcoholism, smoking, drugs, fighting, suicide, gambling, wandering in entertainment venue, internet gaming addiction and pornographic or violent media behaviors which will affect the family and Thai society in the next 10 years as the foundation for knowledge with virtue arises from childhood until the age of 25. When the child and youth lack the moral indoctrination in the early years of their lives, they will reach adulthood and have families with less morality in the future. Therefore, it is clear that there is a great need to accelerate solving the problem now ; otherwise, it will become too late to resolve. In addition, the children who are poor and disadvantaged might face problems with risky and deviant behaviors that make them more vulnerable in difficult and repetitive conditions [5],

Developing youth through moral camp based on the concept of Buddhism is a component of three aspects of life: physical, mental and intellectual behaviors [6]. which in Buddhism is called the moral precept ,meditation, wisdom or collectively known as the **Tri-Sikkha** [1]. These three elements are interrelated and they affect one another. It must be developed together in all 3 aspects of learning. The Tri-Sikkha principle can also be learned by means of the wisdom development according to the concept of Buddhism, which can be done in 3 ways as follows : the wisdom that results from listening. (Sutamayapanya) ; the wisdom that arises from thinking and rationalization (Jintamayapanya) and wisdom that arises from action (Phawanamayapanya). This third method of wisdom development is based on the first two methods of wisdom development as the basis of youth development with the moral camp is based on the concept of Buddhism with a distinctive focus on the development of the person-centered which begins with the mind development to ignore evils ; do more good things and purify mind. It is also a development that emphasizes sustainability and life-long self-development [7] since Buddhism believes that all human potentials are able to develop into a complete human being with their perseverance. In other word, it is able to evolve into a perfect human being through self-reliance, and praise of those who have trained themselves for trying to get themselves out of the distress. This will bring true and lasting happiness [8]

Therefore, provided that the Buddhist philosophy is an educational process that applies the principles of Buddhism as a base for thinking and seeking knowledge on the basis of reality on earth and being proven through scientific processes in the learning process, measurement and evaluation of curriculum as well as teaching methods , the children will make adjustments appropriately and happily

and also grow up to be smart and happy people. The results of this research can be used as a guideline for the development of the youth training in the moral camp to be more effective.

II. RESEARCH OBJECTIVES

1. To apply Buddhist philosophy to the solution and the management of the youth training of moral camp in the area of Nakhon Si Thammarat province.
2. To create new knowledge and model for youth training of moral camp in Nakhon Si Thammarat province to be effective.

III. CONCEPTUAL FRAMEWORK

From studying related concepts, theories and researches, the researcher can summarize the conceptual framework as follows.
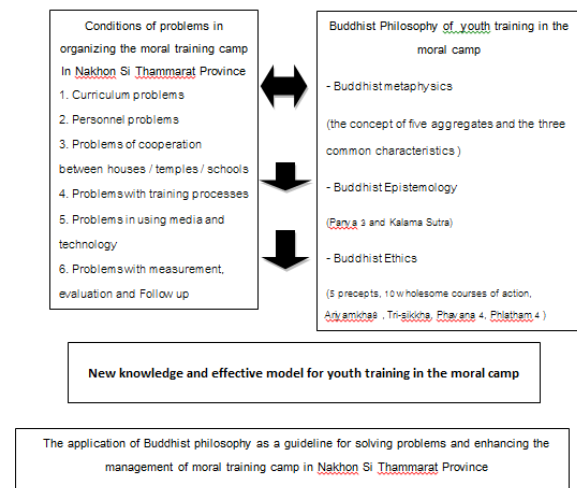
IV. RESEARCH METHODOLOGY

From the conceptual framework of this research, the document research, that is a documentary research aimed to study the management of youth training of the moral camp in the area of Nakhon Si Thammarat Province with Buddhist philosophy. The qualitative research was applied through the dialectic method, and discursive method under the analytic, appreciative and applicative study in order to create the new knowledge and an effective model for organizing youth training in the moral camp, respectively, as follows :

V. RESEARCH PROCEDURES

The researchers conducted research and gathered evidence related to the management of youth training of the moral camp in Nakhon Si Thammarat province with Buddhist philosophy and interviewing the 5 temples where

the moral camp had been organized in the area of Nakhon Si Thammarat, consisting of 1) Phra Mahathat Worawihan Temple, Mueang Nakhon Si Thammarat District, Nakhon Si Thammarat province 2) Rampradit Temple, Pak Phanang District, Nakhon Si Thammarat Province 3)That Noi Temple ,Chang Klang District, Nakhon Si Thammarat Province 4) Manao Wan Temple, Phra Aram Luang, Chang Klang District Nakhon Si Thammarat Province and 5) Klang Sin Tharam Temple ,Thung Yai District Nakhon Si Thammarat Province , using the purposive selection which represented each group that once held a moral camp in the area of Nakhon Si Thammarat province in 5 groups as follows : 1) director of the moral camp 2) the facilitator monks 3) the teachers 4) the youth and 5) the parents or related persons in a total of 15 people as well as other relevant evidences. The researchers prioritized the document data as follows:

Preliminary documents include the Tripitaka, books, academic textbooks on Buddhist philosophy from various sources.

Secondary documents include articles from various journals and research reports related to Buddhist philosophy

The researcher considered the reliability and accuracy of each document by using the criteria for the selection of documents according to the conceptual framework of B.D. Obol Van Dalen . The criteria for consideration in accordance with the research methodology consist of two criteria: external criterial and internal criterial as follows:

The external criteria considered four areas as follows : 1) the source of the document which was the primary source and a reliable source ; 2) the credibility of the author of the document, evidence and status of the author; 3) The reliability of the documents - the evidence which was original or officially certified and the document or evidence which was reliable ; 4) The purpose and content of the document was acceptable or reliable. The researcher considered the documents one by one and selected them as evidence for research and also used other documents as references in the following study. Then, the researcher collected information from the preliminary document sections that the record-keepers experienced or were in the event of recording themselves. Also, secondary documents referred to information obtained from another source. The conveying or giving information was done by interpretation or providing additional meaning for the purpose of presenting information. Therefore, it might be information that was biased or was subject to the subjective nature of the record-keepers or misrepresentation of the subject of the event.

A. Data analysis

It was a reliable and accurate examination of selected data with reliable analysis of evidence or documents. Then, it was analyzed by adjusting the idea that was tilted out

to be as objective or reliable as much. The researchers read the documents collected in accordance with the criteria specified in the detailed analysis framework in order to capture the essence and make notes of each message as if it were the answer to the sample in the research, and after that, the researchers asked the people who had a deep understanding as well as being an experienced instructor of religious practices and Buddhist philosophy to examine the completeness of the results of the analysis of the documents again and to answer another research purpose: to study the application of Buddhist philosophy to solve the problem of organizing the youth training in the moral camp in Nakhon Si Thammarat Province.

B. Data presentation

The researcher then used the data to analyze and discuss the results according to the research objectives by presenting the application of Buddhist philosophy as a guideline for solving the problems in youth training of the moral camps in Nakhon Si Thammarat Province as well as presenting the new knowledge and effective training models for the youth's moral camps in the area of Nakhon Si Thammarat Province.

VI. RESEARCH RESULTS

1. Applying Buddhist Philosophy to a solution to solve the problem of youth training in the area of Nakhon Si Thammarat province. According to the study of Buddhist philosophy, it was applied as a solution to the problem of youth training of the moral camp in the area of Nakhon Si Thammarat Province as shown in Table 1

Table 1: Applying Buddhist Philosophy as a solution to the youth training management

Problems in the youth training	The application of Buddhist philosophy
1) Problems in the curriculum	The curriculum is an important guide to the training process. The nature of a good curriculum should lead to the effective teaching and academic achievement. The good curriculum should also have the course content, which must be established on the basis of moderation. It combines a balanced combination of knowledge and instills morality, ethics, good values and desirable attributes.
2) Problems in the personnel	The applications of Buddhist philosophy as a guideline for solving problems in organizing the

Problems in the youth training	The application of Buddhist philosophy	Problems in the youth training	The application of Buddhist philosophy
	youth's training camp were the Noble Truth 4 and Kalama Sutta, which promoted the people to know the world ; know reasons ; understand the nature of people and provided the participants with good intelligence, knowledge, morality, ethics and culture as well as being able to live happily with others Including desirable ethical behaviors.		young people learn to work or solve problems as well as developing the students to be balanced, happy, moral, and knowledgeable, for the sake of the public and to extend happiness to those around them ,including knowing how to live with others happily.
3) Problems in the cooperation	The applications of Buddhist philosophy as a guideline for solving problems in organizing the youth's training camp were Phara Dharma 4 and 10 wholesome courses of action because human being who is by nature a social animal cannot live alone and has to rely on each other in society. Also, there was the application of 10 wholesome courses of action to support one another in the society as well as a way to promote the youth to adhere to religious principles and the philosophy of the sufficiency economy in living and sharing traditions, indigenous ways, as well as the inheritance of Thai.	6) Problems of Evaluation and follow-up	The application of Buddhist philosophy as a guideline for solving the problems of youth training in the Virtue Camp, namely Pha Pha Dhamma 4 on the principles of physical wisdom, which is knowledge and understanding of various matters arising from education, listening, reading, thinking and research. Building a society of wisdom according to the objectives of the Moral Camp needs to use physical intelligence to find guidelines or plans, projects, activities in building a intellectual society such as educating the knowledge ; being responsible for their duties on a regular basis including joining the activities that aims to be trained for patience and volunteering activity.
4) Problems of Training Process	The training process applied the Buddhist philosophy as a way to solve the problems in organizing the youth's training camp ,using Khan 5 (Benjakhan) and Tri-Sikkha, to develop and increase awareness with consciousness and to know the situation. These help to be immune to life properly and to live in a happy society.		
5) Problems of Media and Technology	The application of the Buddhist philosophy as a guideline for solving the problems in organizing the youth's training camp were Pala Dharma 4, by promoting and encouraging the youth to gain knowledge for Greater understanding of training content. The use of cutting-edge technology in the digital world will help the		

2. New knowledge and model of youth training of the moral camps in the area of Nakhon Si Thammarat province to be effective.

New knowledge about the use of Buddhist philosophy applied as a way to solve the problem of youth training of the moral camp in the area of Nakhon Si Thammarat province, namely Khan 5, Trilak 3, Tri-Sikkha, Phawana 4, and Phalatham 4 as in Fig. 1
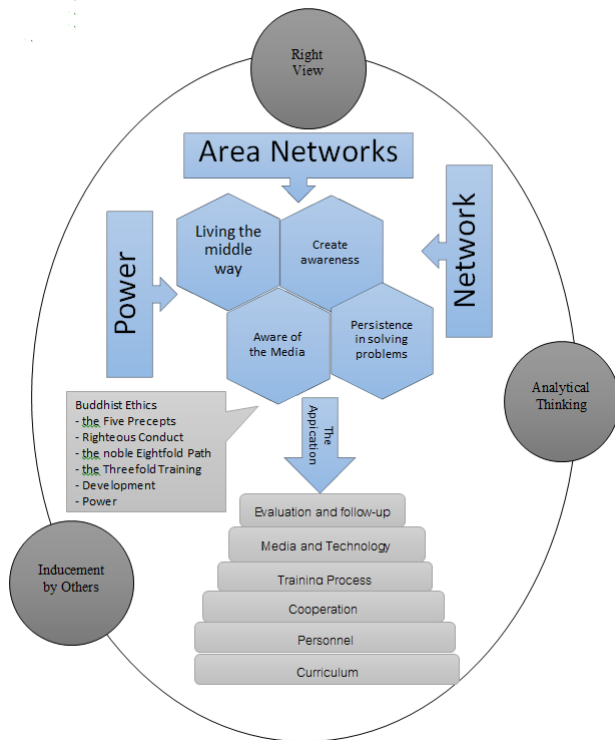
Fig.1: Explicit knowledge

Fig.1, it can be described that using application of various principles has to be knowledgeable, modern and suitable for the age range, and it is also necessary to apply the philosophy in another way, with "understanding, reaching, developing" in the human truth in order to adapt the behavior to keep up with the current materialistic trend and bring the Buddha's teachings to improve physical and spiritual development and continue to live together happily as well as developing the potential of people according to the age range ; enhancing the quality of education and lifelong learning ; developing public health and promoting good health ; promoting and developing religion, arts and culture to strengthen the economic foundations in communities in addition to creating equality to support the age of digital society and promoting the implementation of the philosophy of sufficiency economy.

VII. CRITICISM

From the study of Buddhist philosophy that was applied as a guideline for solving the problems of youth training of the moral camp in the area of Nakhon Si Thammarat Province as described , it can be described that

Bringing the explicit knowledge to create an effective model of youth training camp for morality by using the moral camp is a process of cultivating morals and ethics in a form of learning that allows children and youth to be close to Buddhism as well as having an opportunity to appreciate the principles and know how to practice the dharma as appropriate for age and to apply the principles to self-development and to create the progress in society on the foundation of a strong mind [9] [11] as well as the development of youth in Thai society to modify unwanted behavior or allow the youth to act in such desirable behaviors. There is a starting point which is the need for young people to have a positive attitude towards the behavior or attributes that they want to strengthen easily and willingly to express that behavior. The youth development to have suitable behavior in all aspects is described ; for example, 1) being a person who does not self-persecution, such as having personal health maintenance behavior - not smoking and not gambling ; 2) being a person who does not harass others, such as being honest, not aggressive towards others, and following school regulations ; 3)being responsible for duties such as having good behavior in studying and working as assigned diligently; 4) trying to develop yourself and others in the society as well ; for example, joining student's volunteering for rural development; having energy saving behavior ; maintaining the public domain and preserving the environment. Therefore, the goals of youth development in Thai society can result in youth acting on their own behaviors to achieve their goals in the future. [6] which relates to youth behavior to express the value of life and the ultimate goal about the true essence of human life behavior, respectively. This is because good behavior at the present will continue to influence future behavior and ultimate behavior. [10] Functions and roles of social institutions in promoting youth development in accordance with Buddhism in Thai society are based on an external factor known as Inducement by Others[1]. If social institutions are role models ; in other words, they are good friends (kalyanamit) [8] social institutions involved in youth development in accordance with related Buddhism approaches namely family institutions such as parents ; educational institutions such as schools, teachers, religious institutions including temples, monks and communities etc. This is because being a good example as well as having attentive training will support the youth as a guideline for appropriate action and be a force of the nation in the future.

VIII. SUGGESTIONS

For suggestions to use the findings as a recommendation on the presentation of guidelines to strengthen the management of youth training in the moral camp through the Buddhist philosophy in the area of Nakhon Si Thammarat province , the researchers divided the presentation of research recommendations into two parts

which are the recommendations for use and the recommendations for the next study as follows**:**

A. *Suggestions for utilization*

1. The management of the moral camp should allow the community to get involved in organizing activities from planning activity, activity assignment, participating in activities including the assessment.

2. It is recommended that it have a curriculum which focuses on the principles of Buddhist philosophy in educational institutions by allowing educational institutions to play a part in refining the behavior of the youth , especially some people who are unable to participate in activities with the camp or any place where the activity can be organized.

3. The office of the Basic Education Commission should set a clear policy on how to organize activities to educate and understand Buddhism. Also, there should be more activities to focus on the actions of the Buddhist way.

B. *Suggestions for the next study*

1. It is very important to consider the context, conditions, elements or conditions of various aspects of the community when applying the model of organizing the youth training camp with Buddhist philosophy to temples in which moral camps are organized in other areas,. This is because the context of the area is unique and different.

2. The value of being optimistic of the Buddhist philosophy that influences development of today's society should be studied.

3. The performance and effectiveness of the moral training camp program, conducted by various temples, organizing the project in the same way, should be used to improve the curriculum more efficiently.

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Model of Learning Management Applying the Five Precepts for Thai Students

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Abstract— The purposes of this research were 1) to study the state of learning management in the context of Thai schools, and 2) to develop and propose a model of learning management applying the five precepts for Thai Students. Mixed methods research was used for the design. Qualitative data were collected by in-depth interview from 17 key informants, and to confirm results using focus group discussion. Quantitative data were collected by using questionnaires from 390 samples. Content analysis was used for the qualitative data whereas quantitative data was analyzed by descriptive statistics consisted of percentage statistics, frequency, mean, standard deviation. Results indicated that the state of learning management in the context of Thai schools consisted of 1) Learning Management in 4 areas: (1) Basic preparation, (2) Planning and preparation of learning management, (3) using psychology of learning, (4) evaluation and reports. 2) Five Precepts of learning management of the 5 Precepts for Thai students consisting of the 1st Precepts is no slaughtering of animals; the 2nd Precepts is no theft; the 3rd Precepts is prohibited behavior; the 4th Precepts is prohibiting to be posted; the 5th Precepts is prohibition drink alcohol. 3) Schools need to organize learning management applying 5 precepts. There should be participation among administrators, teachers, school board members, monks, parents, students and communities. Therefore, LFS Model was developed composed of 3 important points which were (1) Learning Management, (2) Five Precepts, and (3) School.

Index Terms— Learning Management, Five Precepts, Thai Students

I. INTRODUCTION

Thailand has been practicing Buddhism for a long time by being the main institution and the identity of the Thai people. It has been a way to bind the minds of Thai people for a long time which the doctrine of Buddhism, and aims to encourage logical thinking and being together in peace (Faculty of Mahachulalongkornrajavidyalaya University, 2009: 27) [1]. Therefore, the importance of the development of physical, mental and social behavior is very important for human life. The physical and mental health of any person is in perfect health, and being able to control body and mind very well, the mind is responsible for controlling and directing every function of the body to work efficiently [2] of coexistence in society happily. Religion has five precepts, called Benjasin, as a basic guideline for virtue in order to be able to refine and refine human traits to be more refined and to behave, and deeds of goodness, restraint, and mindfulness to act, to speak, to think, must first ponder carefully [3]. Violating the rights of others with some physical or some way of property humans will feel terrified, and insecure in life and property. If the society is controlled by the precepts and does not violate each other by the body or the word, our society will be quite [4], being

calm, comfortable, not burning with lust, anger and rulers, is a person with honest body, honesty and conscience, so the 5th precept is a practice that is beneficial to society and for the peace of the society as well [5].

The application of the principles of Buddhism to apply in daily life according to the nature of the problem according to the intellect and will of the individual. Therefore, there are various levels of teaching of Buddhism, both basic, middle and high. It is called the world of morality and the world. Morality is the basic teaching or at the basic level all teachings is a practice system because teachings are truth is caused by real experience. The teachings will have real results only to those who practice them. The precepts are the same although it is a very basic teaching, but if people implement them correctly, they will have relationships with other systems, and developed to the highest level as the Lord Buddha said "The precepts look like this, concentration looks like this, intelligence looks like this, individual concentration training under the precepts will have a lot of results and great merit, intelligence which a person is trained by concentration as a base is of great influence. A person's mind is trained with wisdom as the base will naturally be liberated by the likes

of the trash, namely Gamasawa, Bhavasawa, and Avichasawa."

The introduction of the principles of Buddhism to be used in daily life according to the nature of the problem according to the intellect and will of the individual. Therefore, there are various levels of teaching of Buddhism, both basic, medium, and advanced. There are both parts called it is the philosophy and the world applying principles to solving problems of society is important in Thai society. At present, in every society there is a leader who are knowledgeable and able to lead members towards the goals that have been laid out together Thai society is the same. There will always be a leader with Buddhist leadership, meaning someone who is well-rounded, visionary, knowledgeable, capable, responsible for the work, and have personal relationship skills look at the subordinates positively, fair to have a heart, and know love unity. There is a sacrifice without persistence, without prejudice, which virtue. These must exist in the leadership of the leader to maximize the benefits and efficiency of their work through self-management, people management and organizational management. In the way of Buddhism, it is considered to be a leader who has good Buddhist leadership, and must have qualifications according to Buddhist principles. A leader who has a Buddhist leadership to lead another person in the footsteps of Buddhism, it is considered a very important person. The larger the organization the importance of a leader with Buddhist leadership to its members is becoming more and more important. Any organization who has a good Buddhist leadership will be good as well. On the other hand, any organization has a leader without Buddhist leadership, the organization has to face difficulties in the management of that organization.

In the management system of every organization, the key mechanism that will lead to a good goal is "leader". Management includes planning initiatives, management, supervising and implementing solutions to solve problems to achieve the goals of the organization. Leaders are influencers that can affect every aspect of the organization, be it management and personnel. Leadership is the process by which executives influence the behavior of others. One of the most important success factors in leadership roles is being a good leader is right, so every organization needs to have a good leader. School administration is to be effective according to the aims of the National Education Act. Executives must use leadership to distribute the responsibility fairly to the subordinates in their respective units. In this globalized era, management needs to be able to adapt leadership to various changes and solve problems that arise to be suitable for every situation, and use their knowledge and capabilities to benefit the effective management. Good management should have the ability to manage the work by allowing the personnel to cooperate with the willingness and the full capability. Executives must have the ability to build morale and encouragement to the operators to achieve job satisfaction, the love and faith in the organization, sacrifice for work, exert energy and encouragement mind power, looking for ways to improve the work that progresses even further.

The school is an institutional center of society, second to the family, formed by social needs to perform the main duty of organizing teaching and learning activities for members of society by providing education and teaching, and to develop people to flourish in knowledge, competence, morality, morality, good culture, honesty, sacrifice and willingness to train together, work in various missions for the benefit of society. Education is a learning process in what is an important process that people develop their abilities in both attitude and behavior according to social values including the process of transferring knowledge in both ordinary and vocational lines, morals and important cultures, as a guideline for behavior and use of knowledge to benefit society which is a good attitude of kindness and treats the public in a good way. It gives rise to skills, fluency, and dexterity to follow in the proper manner of moral boundaries both outside behavior and virtue within up to the present and future trends to be used as a model and way of living in the past. Teaching and learning is not consistent with the living environment, and not keeping up with the changes of society progress in science and technology because teaching focuses on theory and knowledge. As a result, students lack the processes of thinking, analysis, problem solving and adapting to the changing conditions of the environment. These things arise from the policy of educational administration, some of which are not suitable for the context of each educational institution. Therefore, there are additional changes to suit the Thai education as much as possible [6].

For that reason, the researcher is therefore interested in the study of the 5 precepts learning management model for primary school students under Bangkok focusing on the application of the five precepts, teaching methods, the application of the 5 precepts to manage learning in schools as a guideline for the development of school curriculum, create motivation of stakeholders, interest in innovation ideas, and control work for the development of teaching and learning of all subjects especially leading to an efficient Buddhist school.

II. RESEARCH OBJECTIVES

The purposes of this research were 1) to study the state of learning management in the context of Thai schools, and 2) to develop and propose a model of learning management applying the five precepts for Thai Students.

III. RESEARCH METHOD

For this study, researchers used a survey research model, along with in-depth interview and focus group discussion, which was a mixed methods research between quantitative research and qualitative research by analyzing data from documents, textbooks, statistical data, research reports of various departments, academic articles, thesis as well as relevant research work, and a formal in-depth interview by using the interview questionnaire created by the researcher to study the opinions of school administrators who were target groups as a case study. Questionnaires were distributed to teachers in schools under the Primary Education Service Area Office, totaling 390 copies. An interview was conducted by interviewing 20 key informants consisting of school administrators, and questionnaires for focus group discussion with 11 experts. The researcher collected the data and analyzed the data as follows: 1) qualitative data was analyzed by using content analysis, 2) quantitative data were analyzed by using descriptive statistics consisted of percentage, frequency, mean, standard deviation. 3) Data from interview was analyzed using content analysis and summarizing results according to interview form, and 4) data from focus group discussion was also analyzed by using content analysis.

IV. RESEARCH FINDINGS

The results of the study of the 5 precepts of Thai students were as follows:

The level of opinions on the learning management of the 5 precepts of the four areas of primary school students consisted of 1) basic preparation, 2) planning and preparation of learning management, 3) using learning psychology, 4) assessment. The results and reports found that the overall opinions on the 5 precepts learning management of Thai students was at a high level, in each side, at high level in all aspects.

The results of the study of the 5 precepts learning management model for Thai students. The 5 precepts learning management model should be shared among administrators, teachers, school directors, monks, parents, students and communities. The 5 precepts learning management should be more involved in 4 areas: 1) preparation with basics, 2) planning and preparing for learning management, 3) using learning psychology, 4) evaluation and reporting. In addition, all stakeholders should be involved in the development of the school by using the guidelines for presenting the 5 precepts learning management model for Thai students

The results of the presentation of the 5 precepts learning management model for Thai students. Five precepts learning management model for Thai students from schools in Bangkok has 3 important focus that should be added in learning management. The 5 precepts should be shared among administrators, teachers, school directors, monks, parents, students and communities. There are four areas: 1) basic preparation, 2) planning and preparation of learning management, 3) application of learning psychology, 4) evaluation and reporting. 3. Should be accessible to all stakeholders. Let's take part in school development by using the guidelines for presenting the 5 precepts learning management model for Thai students of schools in Bangkok.

The results of the study of the 5 precepts of Thai students. The level of opinions on the learning management of the 5 precepts of primary school students in all four areas were 1) basic preparation, 2) planning and preparation of learning management, 3) using learning psychology, and 4) assessment. The results and reports found that the overall opinions on the 5 precepts learning management of Thai students was at a high level, in each aspect was also at a high level in all aspects.

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V. DISCUSSIONS

The opinions towards the learning management of the 5 precepts of Thai students in all four areas consisted of 1) basic preparation, 2) planning and preparation of learning management, 3) using learning psychology, and 4) evaluation and the report found that the overall opinion on the 5 precepts learning management of Thai students same level. This is because there is a very effective learning of

the 5 precepts which is related to the research of Kanchana Chanprasert (2011) [7], on "Development of a self-guided learning model by using problems as a base for teaching physics and biological sciences". A problem-based self-guided learning model in the teaching of physics, biological sciences, developed with four elements as follows (1) The principle of the model, (2) the purpose of the model, (3) the teaching and learning process. It consists of 8 steps: learners preparation, problem solving, problem analysis, planning, research, synthesis, summary, evaluation of learning, and (4) evaluation of performance. The image of the model was shown by t-test of post-study scores of the experimental group and the control group, showed statistically significant differences at the .05 level and was consistent with the research results of Dhevarit Phonyaim (2016) [8] who have researched on "The model of learning management according to the philosophy of sufficiency economy in primary education institutions. Under the supervision of the Office of the Roi Et Primary Educational Service Area 3 ", the research found that the situation and current condition of the learning management according to the philosophy of sufficiency economy in the primary school level under the Office of Roi Et Primary Educational Service Area 3, the overall level was at a high level. When considering each aspect, it also showed at a high level in all 7 aspects, ranked in descending order of average score, namely organizational organization, reporting, planning directories, Personnel management, coordination and budgeting, respectively. The model of learning management according to the philosophy of sufficiency economy in primary schools under the Office of Roi Et Primary Educational Service Area 3, it was found that the elements of the learning management model based on the philosophy of sufficiency economy in primary education institutions under the Office of Roi Et Primary Educational Service Area 3, it consists of 7 elements as follows: 1) organizing learning activities according to the needs of learners and localities, 2) having appropriate lines of command, 3) personnel development, 4) director of learning management activities, 5) building cooperation in community and non-corporate organizations, 6) supervision, monitoring and review of performance, and 7) budget management planning. For the evaluation of the model of learning management model based on the philosophy of sufficiency economy in primary schools, the Office of Roi Et Primary Educational Service Area 3 was found to be correct, suitability and feasibility agree on a high level.

The management of the fifth precepts should be shared among the administrators, teachers, school directors, monks, parents, students and the community. 2) Planning and preparing for learning management, 3) Using learning psychology, 4) Evaluation and reporting. In addition, all stakeholders should be involved in the development of the school by using the guidelines for presenting the 5 precepts learning management model for primary school students. For schools under Bangkok which is consistent with the research of Phatcharee Srisang [9] has conducted research on "Development of a learning management model for social psychology using community and experience as a base to enhance the desirable characteristics of the graduates." The results showed that (1) the development of this learning management model was developed in the form of Co-generative Action Research based on the concept of David and Morten. (Greenwood, J. Davydd & Leven Morten) 2 phases in three consecutive cycles: 1) First phase: giving meaning or clarifying the initial question (cycles of research), 2) continuous phase: research, action to solve problems that have gathered various dimensions (2nd and 3rd round), a structural conceptual framework guiding principles of learning management in a systematic way of 8 elements are: 1) problems and needs for learning management, 2) principles of learning management, learning management model, 3) Purpose of the learning management model, 4) Expected outcome, 5) Subject, 6) Learning activity, 7) Evaluation of the model, and 8) learning resources. (2) Desirable characteristics of the graduate students after using the model of learning management, the knowledge of consciousness had an average score in the emotional level, and the average score was in the high level. All skills have a high average score except for observing skills at the highest level, higher as compared to before using the learning management model. The average score was in the improvement level. The emotional state was at a moderate level and all skills were at a negligible level, except for observational skills at a moderate level. The difference was statistically significant at the .05 level, based on the effectiveness criteria of the learning management model, and (3) effective Ya dong community members. Participated in learning activities for the first and second round, the members of the dance club exercise, dance, first, exercise, who took part in organizing learning activities through the third round of knowledge, everyone is able to learn consciousness, emotions, feelings, and all skills except for group work skills that all members praised Ya Dong in the first round did not learn about the second round, most of the Ya Dong community members took up lessons to know and also consistent with the research of [10] has been researched on "Development of a management model to learn about history to strengthen basic thinking skills of students in grades 4-6, "The research found Studying problems and solutions for developing basic thinking skills, it was found that 57.07% of Grade 4 - 6 students had basic thinking skills at the level below 50%.

The results of problem analysis and guidelines for developing basic thinking skills of students in grades 4–6 from inquiries and interviews with teachers Student interview. The relevant teachers group discussion found that the educational activities strengthen the basic thinking skills at each level still faced the greatest level of learning management problems while the solutions and recommendations of teachers were learning management provides learners with appropriate patterns to develop such thinking skills. The creation of a learning management model. It synthesizes related theoretical concepts, which are: 1) linking learning theory, 2) discovery learning theory, 3) constructivist theory, 4) problem solved learning theory, 5) knowledge tracing learning concept, 6) cooperative learning theory concept, 7) Brain-based learning concept. The results of the synthesis of learning management models consist of concepts, theories, principles, objectives, learning processes, knowledge, principles and systems for promoting learning and conditions for implementing the learning management model. The learning management process was designed to consist of 5 phases: 1) preparation phase, 2) problem coping phase and rational analysis, 3) discussion and conclusion, 4) generalization phase of knowledge, and 5) exchange of knowledge and evaluation while the results from the seminar based on a group of experts to confirm the pattern and receive comments and suggestions, it was found that the format was appropriate to a large extent. When the model was put into trial, it was found that the model-based learning management was effective classified by grade 4-6 were 79.81 / 78.75, 77.41 / 76.88 and 78.56 / 77.94, respectively. The effectiveness index (EI) was 0.56, 0.59, and 0.61, respectively, and the results of the implementation of the learning management model to enhance basic thinking skills of Grade 4-6 students found that (1) figure the learning management model for building basic thinking skills developed and applied at each level was 83.09 / 82.75,79.80 / 79.38 and 84.37 / 81.43, respectively, and the effective index (E1 / E2) was found. EI were 0.63, 0.64, and 0.66 respectively, and have more basic thinking skills after study than before. There was statistical significance at .01 level and (3) Grade 4-6 students in the experimental group that were managed learning according to the model ability to have basic thinking skills after class. They were significantly higher than the control group studied by normal method at .01 level at all levels.

The 5 precepts learning management model for Thai students of schools in Bangkok has 3 important focus should be added. The 5 precepts should be shared among administrators, teachers, school directors, monks, parents, students and communities. There are four areas: 1) basic preparation, 2) planning and preparation of learning

management, 3) application of learning psychology, 4) evaluation and reporting, 3. There should be accessible to all stakeholders who take part in school development using the 5 precepts learning management model guidelines for Thai students of schools under the Bangkok Metropolitan Administration, which is consistent with the research results of Al-halal (2001),[11] the impact of activities was studied on individual teaching and cooperative learning that affect academic achievement , mathematics and social skills use of primary school students tested the effects of two methods of teaching mathematics teaching in primary school, namely individual teaching, cooperative on achievement. The study of mathematics and the use of social skills among primary school students. The research results showed that teaching and learning management using a cooperative learning method resulted in the learning mathematics of higher students, the organization of teaching and learning activities individually. Therefore, teaching and learning using a cooperative learning method can help increase achievement level in mathematics and the use of social skills of students in grade 2. From the statistical analysis results, it was found that all interviewees have consensus. They also prefer the collaborative learning method, and it is consistent with the research of Ziegler, Michele Flasch (2001) [12] studied that the impact of community-based instructional management on ordinary students and special needs together in a secondary school. The results of this study, it was found that the school structure Teacher's beliefs practice and their experiences and experiences have influenced the management of community-based teaching and learning. Learners will gain skills, specific and have greater understanding learners develop three key skills: (1) communication skills, (2) leadership and citizenship, and (3) working with people. It is effective that the learners gain knowledge and understanding in 4 areas: (1) learn that there are various methods of learning, (2) learn how to work in real working situations, (3) begin to find out what the community is. Community is a living resource and it is a learning center of the school, and (4) has shed their knowledge and understanding of the school curriculum that has been studied better. There are three limitations for the condition: (1) the natural proportion of the normal learners with the less capable learners, (2) the preferences of the learners. It is determined by peer groups as input, and (3) teachers and mentors must be aware and understand the nature of the class. Community-based teaching and learning management must be able to connect classroom learning or have the purpose of combining the academic skills and learning opportunities of the learner. Finally, the limitation or continuity of the study arrangement. There are five aspects of community-based teaching: (1) lack of classes, (2) the number of classes with specific needs is overloaded,

(3) the reach of people, all lessons learned will be learned in this method, (4) the limitations of learners who have little ability to learn this way, and (5) community-based teaching and learning, and the base does not provide the learner with repeated practice continuously.

VI. RECOMMENDATIONS

A. Recommendation for general suggestions

Research results on the 5 precepts learning management model for Thai students. The results of the study, the researcher had the following recommendations.

1. Schools should promote vegetarianism or healthy vegetarian that must be patient, and know how to restrain the first precepts.

2. Schools should coordinate with families who must take care of them, and promote the quality of life since childhood.

3. Schools should cultivate awareness of the problems that will follow and campaigning for polite Thai dress.

4. The school should be rigorous with language culture matters, organize activities to attend the temple, and must be instilled to be honest and ashamed, which must be instilled from a young age.

5. Schools should campaign to educate people on the dangers of drinking alcohol, closed liquor factory and punishing heavily, controlling society, making merit without alcohol and should not drink alcohol while driving more serious in the law.

B. Recommendation for further research

If there is further research on the management of the 5 precepts, the researcher recommends conducting research in the following ways:

1. There should be a management development study according to the five precepts for the quality of good school administration. Each of the key components should be carefully studied in order to be accepted that the components that will really affect the quality of education in the school.

2. There is further research on the development of indicators for administrative excellence according to the 5 precepts of the school.

3. The research results obtained should be applied to schools or the next unit considering the achievement in learning management of the 5 precepts of the school.

CONCLUSION

The learning management of the five precepts of Thai students in all four areas consisted of 1) basic preparation, 2) planning and preparation of learning management, 3) using learning psychology, and 4) assessment and report. The overall level was at the high level while each aspect was at the high level in all aspects. The development of the 5 precepts learning management model for Thai students. The 5 precepts should be shared among administrators, teachers, school directors, monks, parents, students and communities. The management of the fifth precepts should be more involved in 4 areas: 1) the preparation of blessings, 2) planning and preparing for learning management, 3) using learning psychology, 4) evaluation and reporting. In addition, all stakeholders should be involved in the development of the school by using the guidelines for presenting the 5 precepts learning management model for primary school students. For the 5 precepts learning management model for Thai students in schools under Bangkok Metropolitan Administration (LFS Model), there will be 3 important focus points: 1. Learning Management, learning management in 4 areas: 1) basic preparation, 2) learning management planning and preparation, 3) learning management using learning psychology, 4) Evaluation and report. 2. Five Precepts Learning management 5 precepts for Thai students. For schools affiliated in Bangkok, there are 1) the first precepts must not kill animals, 2) the second precepts do not steal, 3) the third precepts must not behave in the erotic, 4) the fourth precepts do not lie, 5) the fifth precepts do not drink alcohol. 3. School, the school must conduct a learning arrangement. The 5 precepts should be shared among administrators, teachers, school directors, monks, parents, students and community.

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Development of Propagation Administration according to Buddhist Educational Administration for Buddhist Temples in Bangkok

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Abstract— This research aimed 1) to study and analyze the propagation administration status according to the Buddhist educational administration of temples in Bangkok, 2) to study the propagation administration model according to the Buddhist educational administration for temples in Bangkok, and 3) to present a model of propagation administration according to Buddhist educational administration for temples in Bangkok. Action research and qualitative research were used for research design. Data were collected both qualitative data and quantitative data that related to conceptual framework by interview 10 key informants, focus group discussion with 10 experts, and survey 224 sample using questionnaires. The research results were found that 1) the status of the propagation administration according to the Buddhist educational administration of temples in Bangkok with SWOT analysis of strengths, weaknesses, opportunities and obstacles were found in the principles of (1) the development of the management model, (2) the planning model, (3) the organization model, and (4) the propagation model according to the Buddhist principles. 2) The propagation administration model according to the Buddhist educational administration for temples in Bangkok consisted of (1) the status of the propagation administration according to the Buddhist educational administration integration with Buddhist principles and the concept of propagation theory, (2) develop an integrated Buddhist administration model adhere to the principles of Buddhism and modern ideas, (3) planning by connection modern concept and principles of Buddhism, (4) administration and organization for efficiency in a holistic manner, and (5) emphasize the Buddhism guidelines for propagation. 3) A model of propagation administration according to Buddhist educational administration for temples in Bangkok consisted of 4 aspects which were (1) Santhasana clarifies and explains the reasons, (2) Samatapana gives advice to value and importance, train the mind, accept and be ready to act, (3) Samuttechana creates motivation, motivation, enthusiasm, encouragement, and build confidence in the heart to achieve success, and (4) Sampahangsana creates emotions aesthetically delight the mind by pointing out its benefits and ways to advance towards success as expected in the future.

Index Terms— Buddhist Principles, Educational Administration, Innovation

I. Introduction

The propagation of Buddhism in this form, it will help modern people to access the principles of the Lord Buddha easily, extensively, and quickly. Research studies for the development of the Sangha Council's administration in Bangkok will play an important role in supporting the monks had access to information that would support the betterment of the mission management, including searching for the current status of the Thai monks' missionary management in relation to the missionary approach. Target group management in the propagation of Buddhism allocation of available resources thoroughly setting the value of the principles that should be spread to different levels of missionary work in order to carry out their duties as well as a form of approach to being a movement in the spread of Buddhism along with the development of the Buddhist missionary management model of the Sangha to present to the Sangha has managed the propagation of Buddhism [1].

The current Thai society problem which tends to exacerbate change of the world as Buddhism is a religion of education and self-development which is priceless in

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Thailand from the past to the present. As the personification of Thai and the Thai nation is inseparable, Buddhism is the best choice to solve social conflicts. Therefore, the Thai Sangha Organization has to play a role in the development of other organizations that must develop their own organization first, and teach others later "(Khut. (Thai) 25/158/81). Therefore, the spread of Buddhism, it is the duty of the monks directly. By using different forms of propagation of Buddhism, adjusted according to suitable conditions mission work has been successful and extensively to ensure the stability of Buddhism. The monks are therefore the core of the Buddhist company that is regarded as having an educational role for the villagers, be a moral teacher, help society to be a leader in community development and fix the problem. Nowadays, if the monks also propagated in a conservative manner. The original pattern that has been practiced before causing the new generation to ignore the temple and reduced the number as well because of the advancement of technology [2].

II. RESEARCH OBJECTIVES

This research aimed 1) to study and analyze the propagation administration status according to the Buddhist educational administration of temples in Bangkok, 2) to study the propagation administration model according to the Buddhist educational administration for temples in Bangkok, and 3) to present a model of propagation administration according to Buddhist educational administration for temples in Bangkok.

III. CONCEPTUAL FRAMEWORK
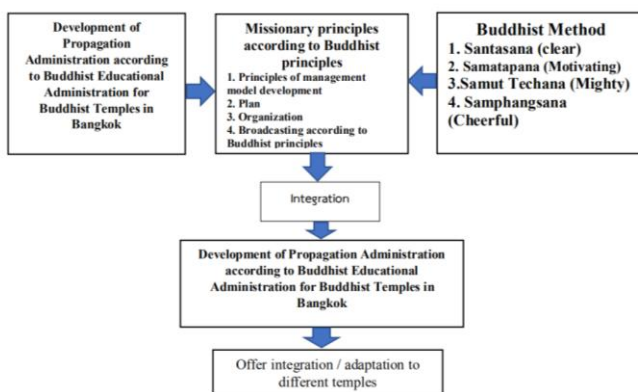
Fig.1 Conceptual Framework

IV. RESEARCH METHOD

Action research and qualitative research were used for research design. Data were collected both qualitative data and quantitative data that related to conceptual framework by interview 10 key informants, focus group discussion with 10 experts, and survey 224 sample using questionnaires. Research tools were questionnaires, questions for interview and focus group discussion. Qualitative data was analyzed by content analysis whereas quantitative data were analysis by using descriptive statistics consisted of percentage, frequency, mean, standard deviation.

V. RESEARCH FINDINGS

1. In-depth interviews using the principles of analysis of the propagation administration according to Buddhist principles for educational administration of temples in Bangkok analyze with SWOT based on ideas and interviews and group discussions from experts. There is a consensus as follows:

1) Strengths, strengths or advantages, the organization of the environment, landscape, buildings, places or physical of a temple as a source of the temples in the city are generally featured in ancient sites, antiques, Buddhist arts, fine arts and architecture which is a cultural heritage and valuable learning media suitable for learning about propagating Buddhism and focus on the conservation of natural resources and the environment.

2) Weakness or disadvantage still lacking skilled personnel budget management of the temple and communication technology used as an important tool in disseminating the Dharma Educational materials, tools, materials, inadequate and outdated materials lack of systematic knowledge management and the coordination within the organization is still delayed. It is a weakness of management for temples in Bangkok.

3) Opportunities, Opportunity to take action Building cooperation and the role of the state to promote focus on human development at the center of development into a complete human being with moral knowledge and develop a strong and balanced society of the Sangha.

4) Threats, obstacles, limitations or factors that threaten the operation of the organization. Most of the temples faced the problem of lack of personnel with specialized skills, knowledge, ability and potential in foreign languages, teaching, presentation techniques, using media, and using necessary technology including the propagation budget Should get from the government to support the budget as well [3].

2. A model of missionary administration according to Buddhist principles of educational administration for temples in Bangkok get the following form.

1) Model of propagation by building a network has been in the area to build a network of religious relations by promoting a process of learning about religion by

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cultivating faith fostering mental stability and livable environments.

2) Planning scheme, the implementation of the plan is the driving process of the propagation of Buddhism absolutely necessary that has to be pushed for attitude change including operating methods for personnel at all levels to achieve recognition and participation and can apply the operations to suit the practice.

3. Form of organization network decentralized organization, such as venue, has the power to make decisions on its own. For the speed of processing relying on the participation of each work segment making the missionary work more convenient [4].

3. To present the model of mission management according to the Buddhist principles of educational administration by integrating with Buddhist teaching methods to spread Buddhism and in order to achieve the achievement of the missionary practice, each time must consist of 4 methods: point out, show, act, urge, awaken, cheerful or bright, motivate, dare, cheerful.

1. Santasana explains it clearly clarify what is to teach, clarify, discriminate, explain and reason clearly until the audience understood clearly, saw it, and saw it as he held his hand to see with his eyes.

2. What should I do or learn to do?, would suggest or describe to appreciate the value saw the importance of practicing and being able to accept and want to do.

3.Samut Techana inspires daring, arousing enthusiasm. Perseverance enthusiastic confident is to make it successful fight work, not afraid, not afraid, tired, not afraid, difficult

4.Samphangs bring to soothe the heart to be refreshed, cheerful, to nourish the mind to be joyful by pointing out the benefits or benefits that will be achieved and the way to progress further to achieve more.

When analyzing the qualitative data to support qualitative data and analyze data about the model of Buddhism propagation administration according to the Buddhist principles the quantitative methods are as follows: 1) the propagation administration according to the Buddhist principles of educational administration, 2) principles of the development of the administrative model, 3) the planning model, 4) the organization model, 5) the propagation model according to the Buddhist principles Find the mean score and the standard deviation appear as the table.

Table 1 Mean and Standard Deviation of Buddhist Principles Data on Buddhist Missionary Administration Model according to Buddhist Principles of Education for Temples in Bangkok Santasana side

Development of Propagation Administration according to Buddhist Educational Administration for Buddhist Temples in Bangkok	$\bar{x}$	S.D.	Meaning
Santasana side			
1. Set up the operating process system	4.12	0.65	High
2. Implement the work plan	4.07	0.68	High
3. Clarify the operation method.	4.01	0.72	High
4. Follow the various procedures.	4.01	0.63	High
Total	**4.06**	**0.64**	**High**

When considering the information on the Buddhist principles about the Buddhist missionary administration model according to the Buddhist principles of education administration for temples in Bangkok. It was found that the importance was at a high level (Mean= 4.06, S.D. = 0.64). It was found that the most important aspect was Set up the operating process system (Mean = 4.12, SD = 0.68), implement the plan (Mean = 4.07, SD = 0.68) and clarify the operation method (Mean= 4.01, SD = 0.72), various operations (Mean = 4.01, SD = 0.63), respectively.

Table 2 Mean and Standard Deviation of Buddhist Principles Data on Buddhist Missionary Administration Model for Buddhist Administration of Education for Temples in Bangkok

Development of Propagation Administration according to Buddhist Educational Administration for Buddhist Temples in Bangkok	$\bar{x}$	S.D.	Meaning
Samathapana Side			
1. Be able to describe the sequence of operations.	4.02	0.61	High
2. Promote ideas and create mutual understanding.	4.07	0.67	High
3. Encourage operational cooperation	4.23	0.78	High
4. Build success and unity too.	4.18	0.65	High
Total	**4.14**	**0.67**	High

When considering the information on the Buddhist principles about the Buddhist missionary administration model in accordance with the Buddhist principles of education administration for temples in Bangkok, in terms of overall smartness, it was found that the significance was at a high level (Mean = 4.14, SD = 0.67) and when considering each aspect It was found that the most important aspect was encourage operational cooperation (Mean = 4.23, SD = 0.78), build success and unity (Mean = 4.18, SD = 0.65) and promote ideas and create mutual understanding (Mean = 4.07, SD = 0.67). It is able to describe the sequence of operations (Mean = 4.02, SD = 0.61), respectively.

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Table 3 Mean and Standard Deviation of Buddhist Principles Data on Buddhist Missionary Administration Model according to Buddhist Principles of Education for Temples in Bangkok Samut Techana side

Development of Propagation Administration according to Buddhist Educational Administration for Buddhist Temples in Bangkok	$\bar{x}$	S.D.	Meaning
Samut Techana side			
1. Inspire confidence	4.22	0.62	High
2. Promote according to the ability or expertise in a specific area to encourage motivation to work with	4.17	0.61	High
3. Establish a policy to work together.	4.23	0.68	High
4. Set goals for success.	4.28	0.76	High
Total	**4.22**	**0.67**	**High**

When considering the information on the Buddhist principles about the Buddhist missionary administration model according to the Buddhist principles of educational administration for temples in Bangkok the overall significance of Samut Techana was found at a high level (Mean = 4.22, S.D. = 0.67). It was found that the most important aspect was Set goals for success (Mean = 4.28, SD = 0.76), set a policy for collaboration (Mean = 4.23, SD = 0.68) and inspire confidence (Mean = 4.22, SD = 0.62). Can or specialize in a specific area to stimulate wanting to work with (Mean = 4.17, SD = 0.61), respectively.

Table 4 Mean and Standard Deviation of Buddhist Principles Data on Buddhist Missionary Administration Model according to Buddhist Principles of Education for Temples in Bangkok Semaphangsana side

Development of Propagation Administration according to Buddhist Educational Administration for Buddhist Temples in Bangkok	$\bar{x}$	S.D.	Meaning
Sampahangsana Side			
1. Improve the workplace landscape	4.02	0.68	High
2. Create a collaborative environment	4.29	0.71	High
3. Work in a team like a Kalyanamit	4.35	0.75	High
4. Encourage members to be happy at work, cheerful and happy at work.	4.12	0.69	High
Total	**4.19**	**0.70**	**High**

When considering the information on the Buddhist principles about the Buddhist missionary administration model according to the Buddhist principles of educational administration for temples in Bangkok as for the overall seminar, it was found that the significance was at a high level (Mean = 4.19, S.D. = 0.70). It was found that the most important aspect was work as a team like Kalyanamit

(Mean = 4.35, S.D. = 0.65), create a collaborative atmosphere (Mean = 4.29, S.D. = 0.71) and improve the work site landscape (Mean = 4.02, S.D. = 0.68).

The quantitative data study found that respondents were double-opinionated with the qualitative data. It is suitable to be used for temples in Bangkok and in the country through processes and effective management and their effectiveness requires knowledge and understanding of general theory and management principles. In order to apply the knowledge to suit the work situation and environment. The Lord Buddha used both science and arts to manage the organization of Buddhism. His Majesty relies on various administrative processes and resources as a management factor. There are many modern organizational theories that can be successfully applied to manage the organization right now.

VI. DISCUSSIONS

1. The model of Buddhist missionary administration according to Buddhist principles of educational administration for temples in Bangkok. The research results were discussed on the results of the study, and SWOT was used to analyze the following points: 1) Strengths, strengths or advantages, 2) Weaknesses, 3) Opportunities to take action.

Strengths or advantages are 1) the structure of the Buddhist missionary administration system according to the Buddhist principles of education administration for temples in Bangkok that can drive Buddhism work, 2) have personnel with knowledge and skills, 3) People are interested in participating in important Buddhist activities, 4) Government agencies give importance to and participate in Buddhist activities.

Weaknesses: weaknesses or disadvantages, including 1) limited personnel lack of personnel who are directly responsible for the routine work, 2) Lack of promotion and support from the government in terms of budget management, 3) Budget for work and activities development is small, 4) Lack of modern technology media for the development of Buddhist propagation according to Buddhist education administration principles.

Opportunities for action include 1) The government's plan policy emphasizes the administration of Buddhism, 2) There are monks to work in Buddhist activities covering an area, and 3) Most of the people practice Buddhism.

2. A model of missionary administration according to Buddhist principles of educational administration for temples in Bangkok.

1. The form of propagation of Buddhism, there are various elements of both temples and individuals to become skilled persons, namely learning the principles, concepts and theories of Buddhism, have good knowledge of the language, knowing how to use words to explain, express

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opinions and Dharma for others to understand and see according to related to the concept [5] has researched "Strategies for propagating Buddhism of the graduates of volunteering on the plateau". The problem of Phra Bundit Asa was lack of personnel because the number of them decreased. Lack of operating budget Lack of management method difficult to reach the host, unable to communicate with villagers in some areas. As for the guidelines for the implementation of the Buddhism propagation strategy of the volunteer graduates on the plateau, it was found that there was a need to enhance the management of the graduate volunteer project facilitate build potential according to the theory of communication, the application of theoretical knowledge to create potential for the application of Buddhist principles and integration for application to suit the local conditions.

2. Plan promote and support the measure to be a learning center and a source of wisdom for the community and there should be a plan to promote implementation especially the monks who perform duties and plan the mission abroad consistent with the concept [6] achievement of Buddhism in the Lisu ethnic group of the Dharma Charik. The results of the research were as follows: 1) The propagation of Buddhist monks in the Lisu ethnic group was slow. Difficulty 2) beliefs and traditional cultures 3) the language of communication is not good in speaking, reading and writing Thai and especially "Lisu language". It is a problem for the Buddhist monks. 4) The shortage of Buddhist monks the appropriate approach to the achievement of Buddhism is: 1) there should be a propagation plan or project, 2) the education of the Buddha and the Dharma, 3) the scholarship for the Buddhist monks and novices of Lisu, 4) should be specified. Meaning of training for the lisu Buddhist mandala as for the suggestion of Phra Dharmajakhi, it should emphasize important Buddhist principles and necessary for life such as 5 precepts, Sangkhahavatthu IV, Gharavasadham IV, Four Noble truth, Makkha 8, to change the attitude and vision of the Lisu Nation to meet the true Buddhism principles which will make the propagation of Buddhism more effective.

3. Form of organization There is also a networked decentralized arrangement. Centralized form of power and informal for the speed of processing must manage the organization according to the form of organizational management related to the concept [7] conducted research on "Buddhist propagation management model of the Sangha Governing Organization Part 2", the research found that the monks did not catch up with the world, do not understand the process of social change and the complex problems of society. When going to preach or give lectures to students or intellectuals listening, it will make them look at the monks that no development making it impossible to solve the problems of the villagers and as a cause for him to

turn to others. In spite of the role of monks in the past who acted as advisors of the villagers when they had problems in their lives. Technology-product facilities and more modern science such as electricity, radio, television, telephone, car, air conditioner, etc. have been involved with the monks. Monks have to adapt to the conditions of society more, and make people who do not understand the need of the monks to be involved in these things. For confusion with principles, the missionaries were not accurate, giving the principles and insufficient insight to make the learners confused and distracted to diminish the original faith and there was confusion and distraction in the principle that the truth is what is the correct doctrine. Monastic institutions do not have sufficient personnel to propagate accurately and precisely, it inherently means that no personnel with accurate knowledge and understanding of Buddhism is a propagation problem causing Buddhists to confuse misunderstandings and misunderstandings from the truth according to Buddhism.

3. Propose a model of propagation administration according to Buddhist educational administration for temples in Bangkok

In order to achieve success in the mission, it consists of 4 methods: point to point, to act, to incite, to awaken, to be cheerful or to be bright, motivated, to be cheerful, as follows: discriminate, explain and clearly show the reasons until the listeners understand clearly, 2) Smartpana invites you to want to be put into practice recommend or lecture to appreciate the value saw the importance of practicing accept and take action or put it into practice, 3) Samut Techana provokes daring perseverance enthusiastic be confident that you will succeed by pointing out the benefits and ways to achieve further progress. solve the concept [8] on "Model of education management for the propagation of Buddhism on social networks of Buddhist organizations in Thailand".

1) Conditions of use on social networks of Buddhist organizations in Thailand were found. There is an education management to spread Buddhism on social media having the connecting link with the media mix / multi-media to reach the target audience as possible as well as various modern communication technologies. It is the propagation of Dharma and public relations activities of the organization. There is an education management to spread the Dharma through twitter, facebook, website, youtube and in the future have expanded channels according to the popularity of society, and has created a propagation area related to Dharma to provide information services to society, individuals, families, organizations, institutions, especially journalism, focus on organizing various activities to provide information and invite to participate in the activities of teaching the Dharma to people of all levels.

2) Model of education management for the spread of Buddhism on social networks of Buddhist organizations in Thailand presented by adhering to the missionary principle of

the Buddhism propagation policy by Phrabhrombandit, the president has laid down a 5-item Dharma policy, consisting of (1) fishing outside the home, (2) coordinating ten directions, (3) making friends throughout the yard, (4) Manipulates intelligence, and (5) Salikapon the victim. It was analyzed in conjunction with the 7 C's theory of effective communication. It is used in communication for the spread of dharma via social media based on 3 principles: approach, understand and reach

3) The researcher concludes the study results from the analysis of the research results and the integration between the 5 Dharma treaching Policy and the 7 Cs Theory. Synthesis is summarized as follows: Leadership, Coordination, Buddhist Knowledge, Buddhist Knowledge Management, Friendly - Kalayanamit, Target Group and synthesize the body of knowledge from research before adopting the Buddhism mission management model in accordance with the Buddhist principles of educational administration for temples in Bangkok, need to study that such a model. How perfect and perfect before use the strengths and weaknesses of the model management must also be analyzed. In which Thai people gathered together to build a temple and gave support as well, donate money, make merit, like to go to temples, bring your kids to Sunday Buddhist school. The temple is therefore the center of the community. Conclusion is the body of knowledge from the research results.

VII. BODY OF KNOWLEDGE FROM RESEARCH
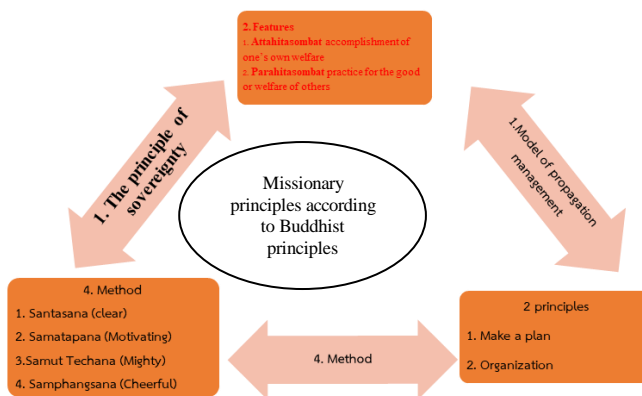
Fig. 2 Development of Propagation Administration according to Buddhist Educational Administration for Buddhist Temples in Bangkok

VIII. RECOMMENDATIONS

A. Recommendation for policy

1) The policy of developing a model of propagation of Buddhism should be promoted with the principles of Buddhism and the ability to use the media of the target audience.

2) The government sector should promote the Buddhist missionary administration model in accordance with the Buddhist principles of educational administration for temples in Bangkok for economic, educational, cultural and community contexts in the country by setting a policy of the Sangha.

B. Recommendation for further research

1) Should study and research on "gathering knowledge and learning resources in the temple, morality, teachings, knowledge and local wisdom in order to develop a model of dissemination through social.

2) Potential development and promotion of the creation of a model of Buddhism in the era of social crisis.

CONCLUSSION

Principles of Dharma will achieve the goal that you set or not. Part of the practice comes from without self-centeredness but use the principle of sovereignty for reasons, truths, righteousness, self-centeredness for the achievement of the goals set. Qualifications, 1) Attha Sombat means the abundance of benefits and benefits to oneself, or things that are the destiny of human life, such as having integrity have the intelligence to be self-sufficient speaking in the present idiom, it is the subject of life, which is the person and the other, 2) the practice of acting for the benefit of others. Propagation management model means to promote the training of the mind and Training the wisdom to realize true intelligence. Principle, 1) Principles of planning Planning is an activity that is expected to be performed, to achieve the purpose achieve objectives, 2) The organization principle is to organize activities for people to practice, to achieve the achievement of the objectives of the job set. Method, 1) Santasana (clear) is to explain the steps of the operation clearly, making it easy for members to follow; 2) Smartasana (motivating) is to explain to understand and agree with the vision. The vision until the faith and the feeling of having to dream far and achieve, 3) Samut Techana (Kaekla) means to inspire self-confidence and enthusiasm in the work of achieving the goal, 4) Samphangsana (Cheerful) is to create an atmosphere of co-operation that will encourage members to be happy in their work.

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Development of Well-Being Network of Buddhist-Integrated Manner of Five Precepts Village Communities to Reduce Health Risk Behaviors of Youth in Ratchaburi Province

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Abstract—This research aimed to analyze health conditions and trends, develop a creative media model, and develop a well-being network of Buddhist-integrated manner of five precepts village communities to reduce health risk behaviors of youth in Ratchaburi Province. The research methodology is action research based on the research and development (R&D) model. Research tools include in-depth questionnaires, impact factor analysis form, a specific group chat, and performance evaluation form by indicators. The research results were found that 1. Situation and trends of well-being network of Buddhist-integrated manner of the youth of five precepts village communities in Ratchaburi Province, found that the process position in good execution and is likely to be in the right position, take steps to improve, correct, rehabilitate (VW-0) and find ways to further progress. 2. The model of creative media for the well-being of Buddhist-integrated manner in order to reduce health risk behaviors of youth in Ratchaburi province are "creative media, campaign for not smoking, drinking, taking" by the cooperation of the partners. " well-being network of Buddhist-integrated manner of the youth of five precepts village communities in Ratchaburi Province" 3. well-being network of Buddhist-integrated manner of the youth of five precepts village communities in Ratchaburi Province by focusing on the participation process of social institution. It was found that performance evaluation form by indicator "well-being network of Buddhist-integrated manner of youth in the model area, village communities of the well-being of Buddhist-integrated manner, at the village of keeping five precepts, Tao Poon Community, Ratchaburi Province. The overall level was at a high level, when considering each indicator, it was found that the context, inputs, processes, and productivity were at a high level in all indicators.

Keywords—well-being network of Buddhist-integrated manner, five precepts village, risky behavior, youth

I. Introduction

Ratchaburi province is one of the areas where there is a situation of risk behavior on the health of youth by statistics from the Health Center 5, Ratchaburi, Department of Health according to the Strategic Development of Health and Environmental Health Promotion System, Health Zone 5 (2017-2021). Clearly show that Ratchaburi province has behavioral situations from survey data in the surveillance system. (1) The problem of lack of self-defense skills of adolescents, which has an important cause, for example, establishments do not have the policy to develop youth-friendly services (YEHS) and a lack of integration of community operations in a network of partners, etc. (2) Management problems for which an important cause, for example, the integration of public health work among the various departments is unclear, not give precedence with the development of an integrated teen-friendly service system, lack of youth participation, it is more difficult to reach target groups in urban society than rural society, lack of information on screening and care results in school students. (The teachers did not disclose the information because they were afraid of the school's reputation), and groups of schoolchildren who have difficulty in reaching, etc. (3) Obstacles to the prevention of alcohol consumption among the population aged 15-19 years, which have important causes. For example, the lack of work integration in the overall youth group and alcohol control activities with an emphasis on law enforcement surveillance. However, most of them lacked clarity on the regulation of alcohol stores around schools and also found there are alcohol stores around the school, etc. And (4) problems in providing hospital care services that are not up to the standards of the Department of Disease Control, etc. [1]

The focus of solving social problems today is that agencies are adjusting the culture of working with communities with an emphasis on promoting the network, which has become a corporate culture in the modern world. Whether it is business, government, or the public sector, they all have to adapt to work in a "network" way rather than the use of power and regulations as before. Where the network may be a mixed network of members of different status, such as community leaders, civil servants,

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businessmen, academics, but when everyone has a common goal, it can become a network. Another is a network of organizations or people of the same status, same occupation, at the same level, such as farmers, researchers, NGOs, research institutes, etc [2]. The main idea is to build quality and develop the strength of a community organization in a movement, make community organizations realize the importance of self-review, and encouraging self-assessment to develop to strength and acceptance.

However, the area of Ratchaburi has been successful in driving the Five Precepts Village Project throughout every period since 2014. The first phase has campaigned to build an understanding of the five precepts of life, as well as lead to practical application in the development of self and family, community, and society. The second phrase has established member registration for the 5 precepts village project, with every temple as a base for recruiting members together with educational institutions and local government organizations. The third phase has organized activities both in terms of quantity and quality at the same time and the recruitment, selection, and awarding of 5 model precepts village communities has been carried out, respectively. As such, the Five Precepts Village Project can therefore serve as the core of the development of a well-being network to reduce the risk behaviors for the health of youth as well.

This research paper presents the results of the analysis of conditions and trends in Buddhist-integrated well-being manner of five precepts village, Ratchaburi province. Consistent with the circumstances and needs of the stakeholders and the development of well-being network of Buddhist-integrated manner of five precepts village communities, to reduce health risk behaviors of youth in Ratchaburi province. The participation process of social institutions in order to learn from each other to be strong, sustainable, and able to take care of yourself permanently.

II. RESEARCH OBJECTIVES

1. To analyze the situation and trends in the Buddhist-integrated well-being manner of five precepts village, Ratchaburi province.

2. To develop a media model for creating Buddhist-integrated well-being manner to reduce health risk behaviors of youth in Ratchaburi province.

3. To develop a well-being network of Buddhist-integrated manner of five precepts village communities to reduce health risk behaviors of youth in Ratchaburi province.

III. LITERATURE REVIEW

A. Health

The word health is the complete state of the body, mind, and ability to live in a normal society. It does not mean only being free from disease and disability[3]. Because of the fact that a person can maintain the qualities of a good life as whole life, management skills are required [4]. Therefore, complete well-being in physical, mental, social, and spiritual [5] or 4 dimensions: (1) physical wellbeing, active body, strength, non-disease, disability, economic or necessary factors, no danger, and have an environment that promotes health. (2) Mental Wellbeing: A happy, euphoric, active, uninterrupted mind, compassion for all things, mindfulness, concentration, wisdom, including a reduction in selfishness. (3) Social wellbeing, good coexistence, have a warm family, strong community, society is fair, equality, freedom, peace, civil society, have a good service system, and has a service system that is a social enterprise. And (4) health, spiritual or wisdom wellbeing health that occurs when doing good or the mind exposed to the noble things such as sacrifice, compassion, access to threefold refuge, reaching to God [6].

B. Buddhist-integrated well-being manner

Buddhist-integrated well-being manner or Buddhist holistic well-being manner is a holistic system of factors relationship. There are various elements that are related to each other according to the 4 principles of prayer which are commonly used when measuring or displaying results. However, in the practice of education or the development process will be used as three studies [7]. By following the four principles of prayer, the development of the body, the prayer, the precepts, the mind, and the mind-prayer as follows: (1) Physical development or physical development is a complementary relationship with the physical or material environment to know "eat, live, listen" as being able to consume them in a way that is you that is harmless, know how to control not to be superfluous or unnecessary that human beings should use. (2) Moral Development is the cultivation of precepts, develop behaviors, precepts training to be located in a discipline without harassing or causing harm, can live together with others as well, and support each other [8]. (3) Emotional Development is mental development, mental training, keep the needle steady, and flourish with virtue such as being compassionate, ambitious, diligent, patient, focused, cheerful, happy, bright, etc. And (4) intellectual Development is wisdom development and wisdom training to know and understand what is true, be aware of the world and life according to its state, can make oneself independent, purify oneself from desires, and free from suffering. Solve problems that can arise with wisdom,

meaning, human resource development according to Buddhism has to be developed together in many ways such as physical development, mental development, intellectual development. Together, it will be sustainable development without emphasis in any way [9]. Holistic well-being is, therefore, true of the nature of life, body and mind must be related to the environment. To be successful, you must develop your mind and intelligence. Intelligence is a key element in making possible relationships with the environment and the various states of mind [10].

C. Risk behavior for the health of youth.

Health risk behaviors are behaviors that bring or cause lifestyle risks, harm the body, lose duty, lack opportunities for normal development. It has a negative effect on one's health, others, and society or died [11]. Health risk behaviors is a major public health problem affecting the quality of life development of people around the world. Most health risk behaviors begin in adolescents. Because it is a curious age that wants to experiment and learn new behaviors, both in an appropriate and inappropriate way. Risk behavior in adolescents is always a common behavior, adolescents tend to have many problematic behaviors [12]. At this age, the problems are common and severe, which if not resolved, will spread to become a big problem and cause serious harm to oneself and others. Parents, teachers, and staff involved with children and adolescents should understand the causes of risky behaviors and know how to prevent and solve these behavior problems. Therefore, risk behaviors are behaviors that will cause harm or negative effects on oneself, others, and society, the person who acts may or may not know the outcome. Risk behaviors can be categorized into the following categories: (1) unthinkable behavior This type is often caused by impulsivity, not thinking of the dangers that follow, such as playing dangerous extreme sports, eating too much or too little food, teens often do it with fun, not thinking about the consequences. (2) Failure to comply with rules, this type of behavior starts with mild violence, such as various inappropriate actions, but is not yet very dangerous to others. These behaviors include stubbornness, ignorance, speak loudly, rudeness, swearing, disheveled attire, long hair, fast driving, loud and frightening motorbikes, or road racing. Most teenagers know these behaviors are bad, but they do it, while some teenagers think it's not bad. (3) Behavior that violates other rules and rights, this behavior is more severe, causing trouble to others or society, including aggression, stealing, physical harm to others, destroy public property, molest the opposite sex, and crimes that are violent, complex. Various teenagers know it wrong, but this is done because there is a high demand for action and low self-control, then often rationalize. (4) Sexual behavior is sexual behavior that is inappropriate for the

ages, values, and Thai culture. It also can lead to problems for oneself and others, including excessive sexual interest, preoccupation with masturbation, the expression of sexual orientation is inappropriate, seduction or wheedle, unprotected sex, abortion, living as a married couple while studying, and have many sexual partners, etc. (5) Drug use behavior or addictive substances, it is a behavior that teenagers use to find happiness or resolve the suffering in a short period of time, starting from the use of soft drugs (such as cigarettes or alcohol) to strong drugs (including methamphetamine, heroin, glue) [10]. The health risk behaviors of adolescents that should be focused on and watched include smoking, alcohol, and addictive substances [13].

D. Five precepts village community

The project to create solidarity using Buddhist principles "5 precepts village" by offering as a royal charity to His Majesty King Rama IX and Her Majesty Queen. It aims to create unity and benefit the happiness of the people and to provide people with a good quality of life by adhering to Buddhist teachings, which will result in a peaceful nation. In line with the policy of the National Council for Peace and Order (NCPO) that assigns missions to government agencies to build solidarity with the people of the nation, by setting target areas to operate simultaneously throughout the country. In the past, the National Buddhism Office in collaboration with other provinces has launched pilot projects and driving operations in many areas with a provincial priest, a primate district, a primate parish, an abbot, a provincial governor, a government agency, an educational institution, local government organization, private organizations, the village headman, and various network organizations in the area to drive the project [14]. For the village keeping the five precepts, it is the result of the recruitment process by the provincial clergy, led by a provincial priest, as president of the clergy, together with the governor as the president of the secular division, and the Provincial Buddhism Office. Coordinate with district priests and sheriffs in every district of the province. "5 precepts village", which is the model of each district, one village that applies to join the solidarity project, using Buddhist principles "5 precepts village". With a focus on promoting the organization of 3 activities, namely, activities promoting the development of life according to the principles, activities according to the Buddhist way of life, and activities promoting the activities of the People's training unit in Sub-district [15]

The results of the literature review show that the village community, preserving the five precepts, has the potential to serve as a key factor in the development of a well-being network in order to reduce health risk behaviors of youth. In this regard, it is necessary to analyze the situation and

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trends in Buddhist-integrated well-being among youths in the 5 precepts village in Ratchaburi province. This led to the development of a creative media model of Buddhist-integrated well-being manner to reduce health risk behaviors of youth in Ratchaburi province. Consistent with the circumstances and needs of the stakeholders and the development of well-being network of Buddhist-integrated manner of five precepts village communities to reduce health risk behaviors of youth in Ratchaburi province. The participation process of social institutions in order to learn from each other to be strong, sustainable, and able to take care of yourself permanently.

IV. RESEARCH CONCEPTUAL FRAMEWORK

This research is action research by defining a research framework based on the concept/theory of Phra Promkhunaporn (P.A. Payutto) [7] with details as follows:
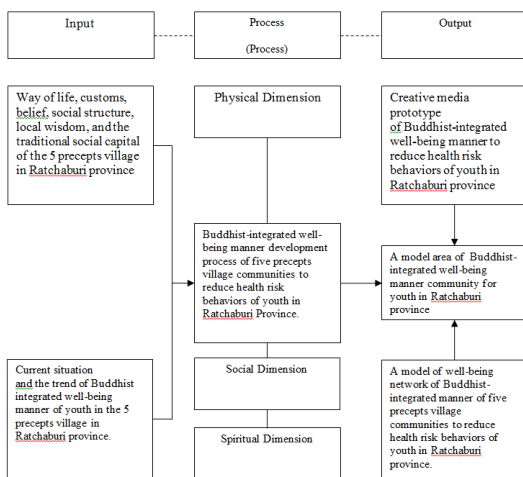
Figure 1 Research conceptual framework

V. RESEARCH METHOD

This research is action research according to the form of research and development (R&D) as follows.

A. Content analysis, book, research report, journal, photo, documentation of correlation showing the Association of Youth Health Risk Behaviors Reduction by Networking Methods.

B. Field Study to understand the concepts and principles of the development of well-being network of Buddhist-integrated manner of five precepts village communities to reduce health risk behaviors of youth in Ratchaburi province through the participation process of social institutions in the area that is the case study with the following research steps.

1) Conduct a study and select community organizations by purposive sampling, based on the importance of the subject matter, is the development of well-being network of Buddhist-integrated manner of five precepts village communities to reduce health risk behaviors of youth in Ratchaburi province by focusing on the process of developing social networks.

2) Study and gather information from interviews, the small group meeting together with the "Bor-Wor-ROR" network consisting of "Bor", the House Department, "Wor", the Temple Department, "Ror", government department/school.

3) To conduct a study and analysis of conditions and trends in Buddhist-integrated well-being manner of five precepts village in the nature of in-depth analysis by focusing on the participation of those involved in conducting the research.

4) Summarize and present the results of the study both documented and field studies by analyzing important issues to serve as an important thinking base, leading to the development of integrated Buddhist well-being manner creative media model to reduce health risk behaviors of youth in Ratchaburi province, emphasizing on bringing the research results to the local stakeholders and national stakeholders have been acknowledged.

5) Analysis of patterns and guidelines for the development of Buddhist-integrated well-being manner to reduce health risk behaviors of youth in Ratchaburi province.

6) Summary of research study results and suggestions

C. Key Informant, consisting of civil society / people in the community area, preserving 5 precepts, the monks belonging to the temple located in the 5 precepts village community, personnel of government agencies / educational institutes located in the 5 precepts village community have the following qualifications:

1) Being a person involved in the behavior of youth or

2) Have at least 5 years of experience in working in the 5 precepts village community or

3) Continuing education and research on community development

4) The tools used for the study consisted of an in-depth interview, questionnaire, Tows Matrix, focus group discussion, and performance evaluation form (Per metric).

D. Data collection

1) In-depth interview is a structured interview.

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2) A 4-dimensional questionnaire consisting of strengths, weaknesses, opportunities, and threats with a 5-level rating scale.

3) TOWS analysis for analyzing the impact of SWOT factors (strengths, weaknesses, opportunities, and threats).

4) Focus group discussion is a collection of qualitative data by encouraging members of the medium group to discuss and interact.

5) Performance evaluation form (Per metric) for finding truth in the framework of the practice of the development of well-being network of Buddhist-integrated manner of five precepts village communities to reduce health risk behaviors of youth in Ratchaburi province in the nature of operational research.

E. Data analysis

1) Quantitative analysis obtained from the questionnaire using a package for social science research.

2) Qualitative analysis obtained from an in-depth interview, focus group discussion, using content analysis technique with context.

3) Performance analysis of the development of well-being network of Buddhist-integrated manner of five precepts village communities to reduce health risk behaviors of youth in Ratchaburi province through the participation process of social institutions consistent with the circumstances and needs of the stakeholders. In the nature of action research, data were analyzed according to the analysis issues together with the reference statistics, they are used to describe the satisfaction and find the truth from the practice of the development of well-being network of Buddhist-integrated manner of five precepts village communities to reduce health risk behaviors of youth in Ratchaburi province.

VI. RESEARCH RESULTS.

Objective 1. The research results showed that the situation and trend of Buddhist-integrated well-being manner of youth in the five precepts village, Ratchaburi province, found that the position, guideline for action were good and possible. It can take action on improvement, rehabilitation (W-O), and find ways to progress further.

Figure 2 Position, operational guidelines from SWOT impact analysis.

Objective 2. The research found that the model of Buddhist-integrated well-being manner creative media to reduce health risk behaviors of youth in Ratchaburi province is "a creative media campaign for not smoking, drinking, not eating" by the cooperation of all parties. " well-being network of Buddhist-integrated manner of five precepts village communities to reduce health risk behaviors of youth in Ratchaburi province " consisting of Photharam district, Sangha of Photharam district, Ratchaburi Buddhist college, Chong Pran Wittaya school and Ban Tao Poon community which has been signed a memorandum of cooperation (MOU) in writing.
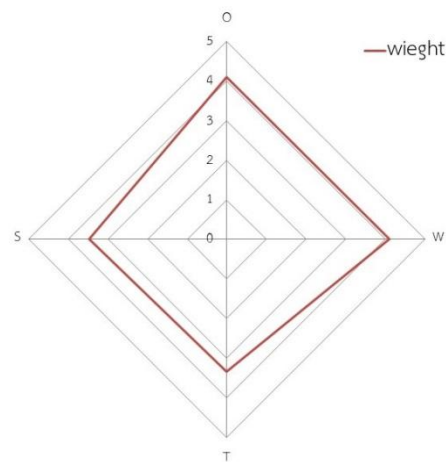
Figure 3 The model of integrated Buddhist health creative media to reduce health risk behaviors of youth in Ratchaburi province.

Objective 3. The research results were found that the development of well-being network of Buddhist-integrated manner of five precepts village communities to reduce health risk behaviors of youth in Ratchaburi province which emphasizing the participation process of social institutions. It was found that the performance evaluation of each indicator " Buddhist integrated well-being manner network

activity to reduce the health risk behavior of youth in the model area of the Buddhist integrated well-being manner village" at five precepts village, Tao Poon community, Photharam district, Ratchaburi province. The overall picture is at a high level. When considering each indicator, it was found that context, input, process, and productivity at a very high level of all indicators.

VII. DISCUSSION OF RESEARCH FINDINGS

The results from the objective research 1 showed that the situation and trends in Buddhist integrated well-being manner of youth in the five precepts village, Ratchaburi province, found that the position, direction, and possible action. It can take corrective action (WO), possibly due to health risk behaviors in Ratchaburi province youth, i.e. beer-drinking behavior and smoking, which can be inferred from three levels: (1) individuals level were curiosity and want to try, (2) the family level, i.e. the family was not warm, the youth is not with their parents and (3) the social level is the specific values of youth groups. A good operating position should therefore campaign to raise awareness at the individual level. which found that it is necessary to focus on the mental health of adolescents, relationships between adolescents and their family, friends, and community by encouraging ways to create happy teenagers to fund the health of young people and lead to a quality population.

The results of the second objective research showed that the model of Buddhist-integrated well-being manner creative media to reduce health risk behaviors of youth in Ratchaburi province was "creative media campaign for not smoking, drinking, not eating". This may be due to the circumstances and needs of the local stakeholders. There was a need to use creative media for the learning of youth in accordance with the principles of the 5 precepts, which are the key principles in living according to the village lifestyle, 5 precepts in line with [16] research results, found that in the work performed to address the problem of drinking and substance use among adolescents. You must first have a good understanding of the problem itself in its nature and scope, adolescents' drinking and other risk-taking behaviors are constantly changing with social trends. Therefore, there should be regular campaigns in a constructive way.

The results of the third objective research showed that the development of an integrated Buddhist well-being manner network of the five precepts village community to reduce health risk behavior of youth in Ratchaburi province by emphasizing the participation process of social institutions, it was found that the performance evaluation of each indicator "Buddhist integrated well-being manner network activity to reduce the health risk behavior of youth

in the model area of the Buddhist integrated well-being manner village" at five precepts village, Tao Poon community, Photharam district, Ratchaburi. The overall picture is at a high level. When considering each indicator, it was found that context, input factors process aspect, and productivity at a very high level of all indicators. This may be because the implementation of the integrated Buddhist health network has a model of operation that meets the needs and the participants of the activity can truly participate in the operation in line with the research of Chutima Thongwachira[11], it was found that the model of community health activities based on the potential of the community and the participation of network partners [18]. There should be a form of activities that people can do on their own, spend less time, and not hinder their career or daily life.

VIII. NEW KNOWLEDGE FROM RESEARCH
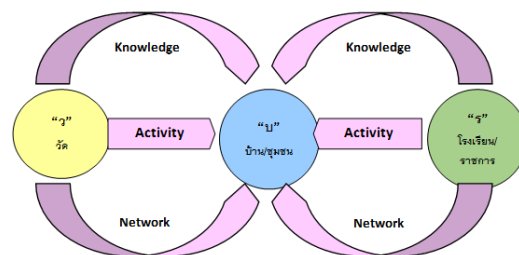
The development of a well-being network of Buddhist-integrated manner of five precepts village communities to reduce health risk behaviors of youth in Ratchaburi province was found to drive social activities through the participation process of integrated social institutions. Working in the form of "Bor-Wor-Ror" network consisting of Buddhist institutions, family institute, educational institutions / administrative institutions which are the driving force social activities that integrate into a network using the village community, keeping the five precepts scattered throughout the area is the main base for the development of Buddhist-integrated well-being manner of youth based on the network process is essential.

IX. CONCLUSION

Circumstances and Trends in Buddhist integrated well-being manner of youth in five precepts Village, Ratchaburi province. It can take action in modifications and rehabilitation (W-O). Networking parties have jointly created a prototype. "Creative media campaigning for not smoking, drinking, not eating" to campaign seriously in the five precepts village, Tao Poon community, Photharam

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district, Ratchaburi province under the operational activities of "Parties to the Buddhist integrated well-being manner network to reduce health risk behaviors of youth in the model area of the community, village, Buddhist-integrated well-being manner".

X. SUGGESTION

From the research results, the researcher has the following recommendations.

A. *Suggestions for the use of research results.*

Health risk behaviors of youth in Ratchaburi province were drinking beer, alcohol, smoking, and sexual intercourse, which implies that it comes from three levels: the individual level, i.e., the curiosity level, the family level, i.e. the family level is not warm. The youth are not with their parents, the social level is the specific values of the youth group, so the suggestion for the use of the research results is to drive the mission to reduce the risky behavior of youth, should use the five precepts village scattered throughout all areas is the main base for the development of Buddhist integrated well-being manner of youth based on the network process is essential.

B. *Suggestions for the next research.*

This research has discovered the process of integrating the work of social networks using the community at the five precepts village can be applied to community development work. The focus should be on the stakeholder engagement process. For future research issues, research on the issue of participation of social institutions in community development, creative five precepts village.

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Model of Teaching and Learning Management according to the Four Noble Truths for Primary School Students under the Bangkok Metropolitan Administration

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Abstract—The objectives of this research articles were 1) to study problems and obstacles in teaching and learning management according to the Four Noble Truths for primary school students under the Bangkok Metropolitan Administration, 2) to study the process of learning and teaching development according to the Four Noble Truths for primary school students under the Bangkok Metropolitan Administration, and 3) to propose a model of teaching and learning management according to the Four Noble Truths for primary school students under the Bangkok Metropolitan Administration. Mixed methods research was used for the design. Quantitative data was collected from 345 samples and analyzed by descriptive statistics using percentage, mean and standard deviation and qualitative data were collected by interview 10 key informants and focus group discussion with 10 experts. The results of the research showed that 1) conditions, problems and obstacles in teaching and learning according to the Four Noble Truths of primary school students in the Bangkok Metropolitan Administration, it was found in 5 aspects which were (1) curriculum, (2) learning process, (3) learning and teaching materials, (4) learning activities, and (5) assessment. Considering each aspect in descending order showed that learning activity was shown at a high level of opinion. In teaching materials, it was found at a high level of opinion, and the curriculum was at a high level. The learning process was at a moderate level of opinion, and in assessment was at a low level, respectively. 2) The process of learning and teaching development according to the Four Noble Truths through 5development processes which were the 1ˢᵗ Process was suffering (problem determination) problem condition and cause of suffering, the 2ⁿᵈ process was a cause or hypothesis, development of analysis and the process of finding suffering, the 3ʳᵈ process was results, collecting data and experimental methods to prove the hypothesis, there was a planning to solve the problem, the 4ᵗʰ process was solution to develop an analysis according to the principle categorize data to classify problems, and the 5ᵗʰ process was to summarize the results of integrated learning with the Four Noble Truths. 3) A model of teaching and learning management according to the Four Noble Truths was proposed 5 STEPS LEARNING which consisted of Model 1 was to search for knowledge, formulate problems and ask questions; Model 2 was to make hypotheses, analyze causes of problems, and seek the cause of suffering particularly teaching form; Model 3 was a method of thinking, creating a learning model in connection with objectives to concept to cause and effect, building knowledge from concept, theory and practice, and distinguish categories sort data that links through various processes; Model 5 was to summarize from 4 models according to the Four Noble Truths which could be utilized for the peaceful integrated Buddhist education for sustainability.

Index Terms—*Teaching and Learning, the Four Noble Truths, Bangkok Metropolitan*

I. INTRODUCTION

Education is the development of people to be knowledgeable and able to strive for the development of the nation since early childhood is holistically both intelligence moral ethics and technology by developing readiness since the country's educational development structure. It is also a preparation for parenting that is suitable for the development of the brain, intelligence, body and mind that drives learning happily connect what you have learned with your real life and act as a good role model. The public sector wants to provide education in accordance with the real way of life with a focus on quality for young children by encouraging the elderly with potential to participate in enhancing the development of young children to receive an equal education in all sectors of the country will develop school-age children to have academic knowledge and strong emotional

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intelligence, able to study and expand knowledge by oneself [1].

Problems in teaching and learning, at present, there are many types of problems. Each of which affects the development of the country and the future of Thai youth whether it is absent from school loss of education and or family problems or present results in the overall study of the country is the problem that gates about the right to dress to school, or the problem of teacher pornography causing the image of Thai teachers to return to the world of deterioration again. All of the above are problems of Thai education management.

Problems and obstacles to learning among students and teaching and learning of teachers, the principles of Buddhism should be integrated into the teaching of teachers as well in order to cultivate the habits for students to be absorbed and put into practice in particular, the Four Noble Truth category is suffering, happiness, occurrence or cause of suffering, anger, an end of suffering and path leading to the cessation of problems and obstacles in teaching and learning, making researchers interested in researching the subject. The teaching and learning management model according to the theory of Four Noble Truth principles to be used as a teaching and learning management model for school students. It may make students happy with their studies and promote and support such policies for maximum efficiency in the development of people, also developing students.

II. RESEARCH OBJECTIVES

The objectives of this research articles were 1) to study problems and obstacles in teaching and learning management according to the Four Noble Truths for primary school students under the Bangkok Metropolitan Administration, 2) to study the process of learning and teaching development according to the Four Noble Truths for primary school students under the Bangkok Metropolitan Administration, and 3) to propose a model of teaching and learning management according to the Four Noble Truths for primary school students under the Bangkok Metropolitan Administration.

III. RESEARCH CONCEPTUAL FRAMEWORK

A model of teaching and learning management according to the Four Noble Truths for primary school students under the Bangkok Metropolitan Administration, the researcher has adopted the concept theories and related research to be consistent with the variables as shown in Fig. 1.
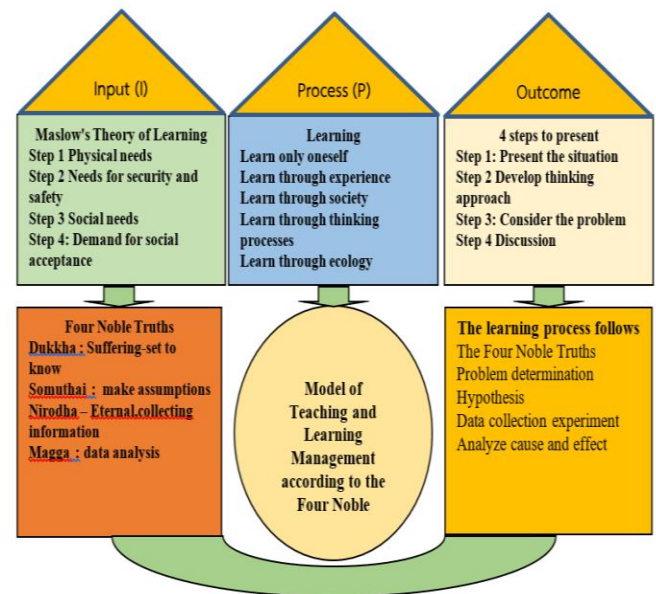
Fig. 1 Conceptual Framework

IV. RESEARCH METHOD

1. The researcher has been conducting research in Mixed Method Research by using quantitative research methods mainly and qualitative research is supporting research by collecting questionnaires and opinions from teacher's elementary education under Bangkok obtained a sample of 345 people and a qualitative research by interviewing 10 experts to synthesize information on the study issues. To organize a focus group discussion of 10 experts. The research tools consisted of questionnaires, interviews form and issue for focus group discussions.

2. Data analysis and statistics are used for mean and standard deviation, presented in the form of a table with subtitles.

3. Analysis from interviews using the method of content analysis and summarize the data according to the interview form.

V. RESEARCH FINDINGS

1. The condition of problems and obstacles in teaching and learning according to the principle of Four Noble Truths of primary school students under the Bangkok Metropolitan.

Educational management based on problems and obstacles in teaching and learning management in the current state. There are still many problems that the government has not been able to solve and the problems are accessible and relevant from statistical studies. The data from questionnaires were used to analyze problems and obstacles in teaching and learning according to Four Noble Truths,

there was a lack of application process and integration, namely 1) curriculum, 2) learning process, 3) media learning and teaching, 4) learning activities, 5) measurement and evaluation. Every issue was studied.

2. The process of teaching and learning management according to the Four Noble Truth principles for elementary school students under Bangkok Metropolitan Administration.

Process 1, Suffering (problem determination), study the problem condition, environment, instructional media and teachers that what are the problems and obstacles? Which is the cause of the suffering problem search. It is a connected thinking practice, and thinking for a cause. The teacher has to point out where the student is coming from, and able to manage to achieve goals was classified as a success.

Process 2: Assumption (cause) or assumptions giving students analyzed to find the root cause of the problem in teaching and learning management, focus on thinking action and cause which is the cause of all suffering by making assumptions for students to participate seek learning together fostering empathy from teachers helping to resolve the problem and be able to find the cause of suffering is the development of the process of finding suffering.

Process 3 Nirodha (Outcome) develop experiments and information gathering whereby teachers should aim for learners to define objectives and how to experiment to prove the hypothesis. It is the development of learning to create a body of knowledge in learning and teaching media, learning by using the principles of the Four Noble Truths as well by starting from the use of different media to categorize it into the path to be used to supplement educational media classified as the path because they can achieve the achievement of their goals.

Process 4 Magga (solution) develop a cause analysis to solve the problem must categorize the data and then come in order classify the problem and analyze it that will lead to solving the problem properly, promote knowledge sharing strengthening morality, generosity, sharing things starting from small things, it is classified as a way of learning with clear solutions that can be managed.

Process 5 Conclusion is one more step of learning development. For the learners to learn the training process by applying knowledge from practice through 4 processes, there is a summary of results, creating work and a team. Co-create works obtained from solving social problems creatively. It is a body of knowledge that is responsible for society which is an expression of support and share in the society for a sustainable peace.

3. Propose a teaching and learning management model according to Four Noble Truths principles for primary school students in Bangkok.

The results of the research revealed that the teaching and learning management model according to Four Noble Truths principles was proposed for elementary school students under the Bangkok Metropolitan Administration, obtained from the research can be summarized as a body of knowledge from the research "5 STEPS LEARNING" as follows.

Model 1 is the problem determination model. Learning ask questions or questioning step is a place for students to practice observing the situation various phenomena until the doubt. Then, train the child to ask important questions including answer predictions by searching for knowledge from various sources and summarizing temporary answers.
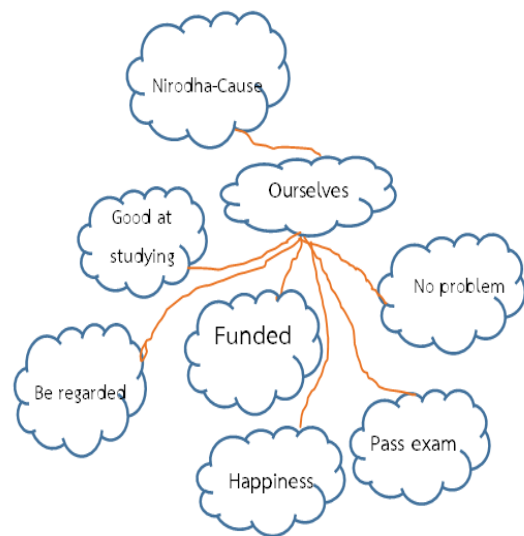
Fig.2 Shows the relationship of suffering

Model 2 from the study of data and hypotheses having students analyze the cause of the problem and make a hypothesis. Learning seeks the cause of distress from teaching. How did it come about from concept analysis? Theories and expert interviews to synthesize information leading to the design process planning work from various learning sources, including experiments, is a stage where children use the principle of empathy as a mechanism to manage concepts and practices such as pictures.

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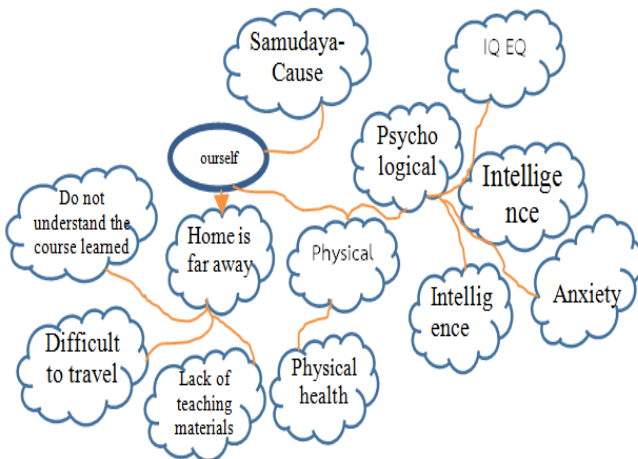
Fig.3 Shows the interrelationships of causes of suffering.

Model 3 from the model experiment the teacher will give you advice since the way of thinking how to do and build a coherent learning model set objectives to prove hypothesis and collect data linking ideas into results from the cause to the success what are the factors that contribute to this success or what are the problems or obstacles that do not meet the objective learning. This style will learn the performance results gather information in different dimensions to summarize or create a picture description. Linking ideas is the building of knowledge from the conceptual principles, theories and empirical practice are shown in Fig.4.

encountering problems and obstacles at work, stick to the concept of how Magga is the solution to the problem, so it will get good results by synthesizing the concept, linking it with different processes as shown in Fig.5.
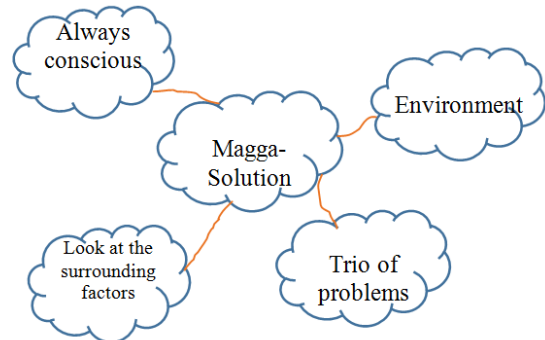
Fig. 5 Shows the relationship between learning with Magga (Solution)

Model 5 is a summary of 4 models according to the Four Noble Truths, which is a model that the researcher has developed in 4 models according to the Four Noble Truths, know to be the process of training children to apply knowledge that is understood and can use learning to benefit oneself and for society as a whole maybe this is another format that can be used by teachers, and share to society with peace and sustainability as in Fig.6.

Fig. 4 Shows the relationship between angered learning management (outcome) success.

Model 4 Solution, it is organized to separate the different parts of evidence or information that has been divided into categories to find an answer according to the purpose and according to the assumptions established. When
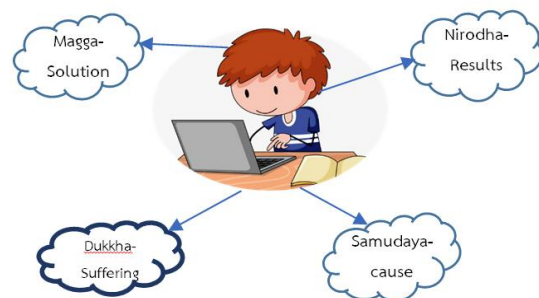
Fig.6 Shows the relationship between the four noble truths of learning management.

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VI. DISCUSSIONS

1. The condition of problems and obstacles in teaching and learning according to the principle of Arithmetic 4 of primary school students. In Bangkok, it was found that

Teaching and learning management according to the Four Noble Truth for elementary school students under Bangkok Metropolitan Administration. In terms of measurement and evaluation, it was found that there was a low level of overall opinion. Considered individually, in descending order of 3 ranks: for individual student development. It is an assessment of the quality, skills, knowledge and understanding of each student. For further development, it is analyzed according to the specified criteria, evaluated in numbers and when considering each item, in descending order of 3 ranks, namely, using the results of the evaluation to clarify and develop in the disadvantage of the students. There are criteria for measuring efficiency. Instructors use observation as a learning evaluation inconsistent with correspondence with Charan Ka-in [3] study problems of teaching and learning of Buddhism. At the secondary school level, Pan District, Lampang Province, it was found that the evaluation was in the low level.

2. The process of learning and teaching development according to the Four Noble Truth principles for elementary school students in Bangkok Metropolitan Administration found that teaching and learning management according to the Four Noble Truth principles for primary school students under Bangkok. Learning management process Provide training for students by switching students who have good behavior to lead fostering attention to learners through various activities to help solve problems of learners.

Teaching and learning media, teacher training or a teacher who teaches the use of media problem solving is planned according to various processes from finding the problem and solving it. This kind of learning is including taking action and organizing activities together, organized as a path for development, using media, organized as a path, organizing various activities to enhance media for education.

For learning activities, educational institutions, community administrators and teachers should set up a policy to promote learning innovation knowledge sharing or share experiences and also to strengthen morality, generosity, sharing things. It starts from small things before it is classified as teaching according to the Four Noble Truths, consistent with Ornong Srichaisuwan has researched on "The effect of using the Four Noble Truths teaching set on learning achievement and problem solving ability of Prathomsuksa 4 students" found that 1) the four Noble Truths teaching set was effective 2) The fourth grade students who were managed to learn using the Four Noble Truths teaching set had higher post-experiment achievement than before. There were statistically significant at level. 01 and 3). The fourth grade students who were managed to

learn using the Four Noble Truths teaching set. Have a higher problem solving thinking ability than before the experiment. With statistical significance at the .01 level.

3. Propose a teaching and learning management model according to Four Noble Truth principles for primary school students in Bangkok.

1. In the curriculum, the teachers participate in the curriculum drafting. It will meet the needs of the learners and learn the problems of the curriculum and the different contexts of each learner.

2. The learning process, students should be trained by alternating students who have good behavior and problem solving. This section requires cooperation from all parties of the school.

3. Instructional media training for teachers on the use of media, planning to solve problems is angered including taking action for students to develop media use by starting from using simple media first.

4. Learning activities should promote knowledge sharing by clarifying that if the knowledge of each acquired person together to get better knowledge than one person thinks the way.

5. Measurement and evaluation, the teacher has to clarify to the students their weaknesses for further development. Fairly measured and evaluated and measure results in many ways.

All 5 issues are consistent with the research [4] on "The effect of using the Four Noble Truths teaching set on learning achievement and problem solving ability of Prathomsuksa 4 students". Results 1) The Four Noble Truths teaching set was created effectively. 2) Prathomsuksa 4 students who were managed to learn using the Four Noble Truths teaching series had higher post-experiment achievement than before. There were statistically significant at .01 level. and 3) The fourth grade students who were managed to learn using the Four Noble Truths teaching set, have a higher problem solving thinking ability than before the experiment with statistical significance at the .01 level.

Amara Roddara, [5] has researched on "The results of teaching the Four Noble Truths on principles on academic achievement and the investigative thinking ability of the sixth grade students at Suriya Uttayapmi Kindergarten, Nakhon Ratchasima Province. The learning achievement of the Dharma of the students learned from the Four Noble Truths teaching methods. The study was statistically significantly higher than before at the .05 level and the investigative thinking ability of the students who learned from the Four Noble Truths teaching methods. The study was significantly higher than before studying at the .05 level. [6] "The Development of Non-School Educational Activities in the Four Noble Truths to Enhance Social Living Skills for Male Inmates in Prisons, in the middle of Chiang Mai Province." Summary of the research results were as follows:

1. The study of three healing organizations used the framework or approach of the process along the Four Noble Truths, namely the study of the problem of suffering. This is

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because drug addiction in various forms is the most important stage of family and self-related problems.

2. The development of an activity model based on the Four Noble Truths to enhance life skills is effective. Analysis of case studies of all 3 organizations as a guideline for the development of the model. The principles, objectives, plans of learning activities and training methods are important, aiming for learners to gain knowledge and see valuable life skills, and practice activities according to the neo-humanoid process including organizing physical activities under the framework of the Four Noble Truths.

3. The results of the experiments using an activity model based on the Four Noble Truths were conducted in a group of male inmates who took drugs. Men have a high level of satisfaction in every activities and results from self-assessment showed that most of them continued to do activities every day, such as meditation and brainwave relaxation. Observing the behavior of male inmates during the activities found that they have cooperation and unity, help each other to make decisions in solving group problems with reason, assertiveness, pride in working together responsible and has a relaxed mood.

4. Factors and conditions related to the implementation of the event format. The important factors are facility management, speakers, budget, safety, facilities including organizing activities, promoting morale for inmates is an important factor and condition that will make drug addicts change their behavior to be more valuable to themselves, society, community and nation.

VII. BODY OF KNOWLEDGE FROM RESEARCH
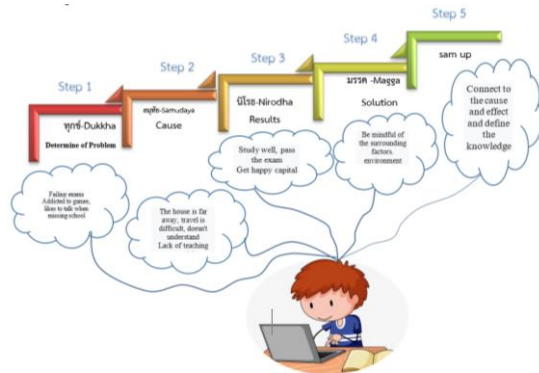
Fig. 7 Model of Teaching and Learning Management according to the Four Noble Truths for Primary School Students under the Bangkok Metropolitan Administration

VIII. RECOMMENDATIONS

A. Recommendation for policy

1) Educational institutions should adopt a teaching and learning management model according to the Four Noble Truth principle for elementary school students in Bangkok Metropolitan Administration to use in teaching or apply it integrally to achieve learning that can change the learners' behavior.

2) The teaching and learning management model according to the Four Noble Truth principles should be adopted for elementary school students in Bangkok Metropolitan Administration to use in teaching or apply it integrally to achieve learning that can change the learners' behavior.

B. Recommendation for further research

1) Should study the conditions, problems and obstacles in teaching and learning management according to the Four Noble Truths of primary school students in Thai society.

2) Should study the process and develop the teaching and learning management according to the Four Noble Truths through online society for ecological learning.

CONCLUSSION

The teaching and learning management model according to the Four Noble Truths for primary school students under the Bangkok Metropolitan Administration. Researchers have studied from the concept theories and principles of Buddhism and developed a teaching and learning model according to the Four Noble Truths through the development process by using the Four Noble Truths: Dukkha, Samudaya, Nirodha, and Magga, along with the so called "Works in the Four Noble Truth" consisted of degrees (Determination, Knowing), Pathana (Neglection), Trajikiriya (Enlightening) and Praying (Prosperity or Action), consisting of a process for developing a model and solving a problem (the Suffering stage). The second step is the hypothesis stage (the Samudaya stage), the third step is the experimental stage and the data collection (the Nirodha stage), the fourth step is the data analysis step (the Magga stage).

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A Model of Learning Promotion according to the Threefold Training for the Elderly in Sangha Administration Region 1

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Abstract—The purposes of this research were 1) to study the principles, concepts and theory of learning promotion for the elderly, 2) to develop a model of learning promotion according to the Threefold Training for elderly in Sangha Administration Region 1, and 3) to propose the model of learning promotion according to the Threefold Training for elderly in Sangha Administration Region 1. Participatory Action Research was designed. Qualitative data were collected using interview from 10 key informants and using focus group discussion with 10 experts. Content analysis was used to analyze qualitative data whereas quantitative data was analyzed by using descriptive statistics. Results indicated that 1) the elderly had opinions on the model of learning promotion according to the Threefold Training for elderly in Sangha Administration Region 1 in overall was at 4.77 percent. Considering in each aspect, Athipanya Sikka promote learning accounted for 4.65 percent, Atitsilasikha was at 4.71 percent, and Athichittasikha according to the learning promotion process according to the Threefold Training accounted for 4.78 percent by synthesis as a form of learning promotion activities following the Threefold Training for the elderly. 2) Development of a learning promotion model according to the Threefold Training using the 3 happiness activities consisted of 1) physical health activities by practicing 3 minutes of left-hand and right-hand swinging, 3 minutes of up and sitting in a chair. 2) Healthy and enjoyable activities focus on recreational activities, singing or dancing which is to enhance physical health and the mind to have fun. These three healthy activities have brought happy and bright by integrating with religious activities. 3) A model of learning promotion according to the Threefold Training for elderly in Sangha Administrative Region 1 reflected the common concept exchange knowledge and plan for 3 happiness activities which were 1) healthy physical health activities, 2) happy health activities, and 3) bright happy healthy activities integrated with the Threefold Training (Trisikkhā), namely "Athipanyasikkha" to promote learning. "Atisin Sikka" and acted according to the plan observe the results of the "Athipanya" practice, the change of learning, well-being, lifestyles of the elderly in Thai society.

Index Terms— *Promoting Lifelong Learning, Family Institution, Elderly Society*

I. INTRODUCTION

Situation of the Thai elderly, there is a higher proportion of the total population of the country, with 11.90% in 2010 and it is expected that in 2030 the proportion will increase to 25% of the total population which will make Thailand an elderly society. At the same time, the working-age population of Thailand whose duties to support the elderly will also decrease with a budget to care and maintain health. This causes the performance of various systems to decline and the elderly therefore have health problems. Most of them had health problems from chronic illnesses. (Foundation of Thai Gerontology Research and Development Institute, 2012: 123) found that the elderly had health problems resulting from illness with hypertension, 31.7%, diabetes 13.3%, heart disease 7.0%, ischemic stroke. 1.6 percent of the elderly female had a higher proportion of morbidity with these diseases than the male elderly according to the statistics studied [1].

In current society, there should be a way to care for the elderly in a holistic aspect ranging from physical, social, environmental and mental health with a monk as a leader. It

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will enable the elderly to receive physical and mental care at the same time and have joint activities in the age group using measure as the learning center of the elderly. Using a model to promote learning according to the principle of the Trisikkha principle for the elderly in the Sangha District 1, learning is the most important self-development in living, working and living happily with others in society. It is a process that acquires knowledge, skills and attitudes [2]. The elderly can learn from hearing, practice, experience, exchange of knowledge. The use of threefold principles as a development tool learning of the elderly. It is part of a lifestyle that occurs at all times and throughout life. Helping the elderly to change their behavior, thinking, attitude can be useful and guide development [3] especially the Ministry of Human Resource Development or district hospital elderly club such pictures should be used to encourage the elderly to do activities together [4], to develop guidelines for the development of health promotion activities for the elderly according to the threefold principle to develop the true quality of life of the purpose called "freedom", namely the physical health of the elderly, elderly mental health cognitive health for the elderly, elderly social health. In transition to a proactive health service system and focus on promoting sustainable health. It's a challenging role for today's nurses in promoting health is an important factor for behavior change, health promotion for the elderly has sustainable health promotion behavior [5].

II. RESEARCH OBJECTIVES

The purposes of this research were 1) to study the principles, concepts and theory of learning promotion for the elderly, 2) to develop a model of learning promotion according to the Threefold Training for elderly in Sangha Administration Region 1, and 3) to propose the model of learning promotion according to the Threefold Training for elderly in Sangha Administration Region 1.

III. CONCEPTUAL FRAMEWORK

The model of learning promotion according to the Threefold Training for elderly in Sangha Administration Region 1, to be related to the variables on the promotion of learning according to the Trisikkha principle for the elderly and according to the theory of social role as shown in Fig.1.
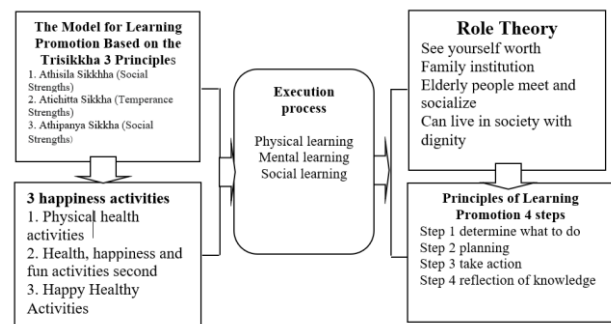
Fig. 1 Conceptual Framework

IV. RESEARCH METHOD

A model of learning promotion according to the Threefold Training for elderly in Sangha Administration Region 1, the research implementation steps are as follows:

A. Evidence Survey

Step 1: Researcher conducts research using a participatory action research (PAR) model to study concepts, theories, and transform lessons into a body of knowledge, analyze and synthesize into activities for the elderly.

Step 2: this stage is developed as a research tool based on conversation with the elderly by using empirical data from the discussion area with the elderly and create research tools such as interview form, questions for focus group discussion.

Step 3: Develop quantitative research, and data were collected from questionnaires from the elderly from Sangha Region 1 with 120 samples.

Step 4: Collecting data including interviews with 10 experts, and focus group discussion with 10 experts.

B. Research tools

1. Survey guide is a questionnaire from the elderly in the Sangha Administrative Region 1.

2.Interviewing is an interview form for promoting learning according to the Trisikkha principle for the elderly in the Sangha Administrative Region 1.

3. Quiz for participating in learning promotion activities for the elderly before participating in activities and after participating in activities with a test analysis of elderly health from the district hospital doctor to observe and take care of the participants.

C. Data analysis and statistics used to analyze data

1. Descriptive Statistics for describing general characteristics of the sample and descriptive level of opinion and percentage.

2. Qualitative data were analyzed results obtained from interviews with experts, and focus group discussion by using content analysis.

V. RESEARCH FINDINGS

1. Role Theory, a theory that promotes self-worth human needs and family institutions which social theory encourages the elderly to have social gatherings living in society with dignity through 3 happiness activities: 1) physical health activities, 2) happy health activities, 3) health activities. It is the transmission to learning according to the principles of Trisikha 3, which are 1) Atisilasikha, 2) Athichittasikha, 3) Athipanya Sikka that is consistent with activities developed for the elderly [6].

2. Develop a model for promoting learning according to the threefold principle for the elderly in the Sangha Administrative Area Region 1, summarizes the statistics of each aspect as in Table 1.

Table 1. Opinions on the Trisikkha learning for elderly in Sangha Administration Region 1

A model for promoting learning according to the Trisikkha principle for the elderly in the Sangha Area Region 1	Opinion level of the elderly	
	Percentage	Rating
1. Athisila Sikkhha (Social Strengths)	4.65	2
2. Atichitta Sikkha (Temperance Strengths)	4.71	3
3. Athipanya Sikkha (Social Strengths)	4.78	1
Overall	4.77	

From Table 1, the elderly had opinions on the Trisikkha learning promotion model for the elderly in the Sangha District Region 1, with the overall 3 points, the shy, the most agree, and the mean value was 4.77, the standard deviation was 0.51, all of them agreed sorted in descending order, namely the pattern of learning promotion. "Athipanya Sikha" mean is 4.89, standard deviation is 0.64. "Atisil Sikkhha" mean of 4.79, standard deviation of 0.64 and the promotion of learning "Atichittasikha" had a mean of 4.78, standard deviation of 0.59, in order of importance of promoting learning according to the Trisikkha principle [7].

3. Propose a model to promote learning according to the Trisikkha principle for the elderly in the Sangha Administrative Region 1 from 3 types of education.

Format 1 in the aspect of Athasilasikkha having physical activity by observing the precepts by Samathan, the precepts

of the preliminary setting spend time doing activities on Athisilasikkha integrating the dimensions of the society, the body, about 5 minutes, the form of activities exploring the body, comprehension, verbal and attitudes with all charities is called Athisilasikkhha, and finally revealed mercy call this activity mercy Dharma sustains the world make the elderly happy have joint activities forming a learning society can be used as a center of learning will get the following Figure [8].
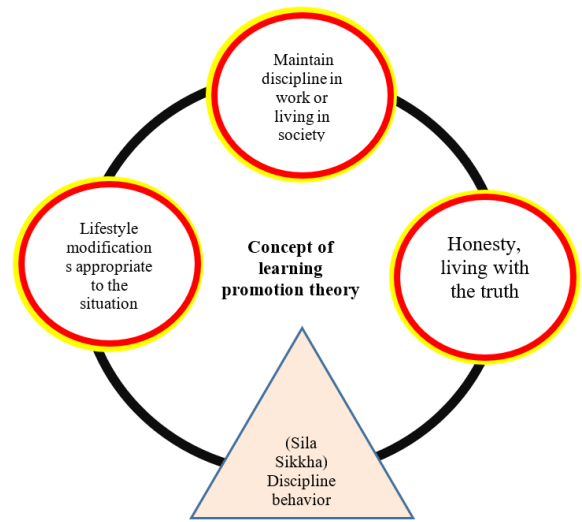
Fig.2 Concept of Learning Promotion Theory (SilaSikkha)

Format 2, the description integration into social dimensions training the mind to be calm and stable as a concentration such as performing public activities or volunteer activities considered self-care, it is the practice of activities that people initiate and take for the benefit of themselves in the maintenance of life, health and well-being. Measure as the center with a monk as a leader developing this Buddha mantra is one of the ways you can bring the strength of faith and wisdom to your life. Because prayer, in addition to the remembrance of the jewels, which is most respected in life then is also a recitation of the teachings in order to remember and take into account the conduct of wisdom as well.
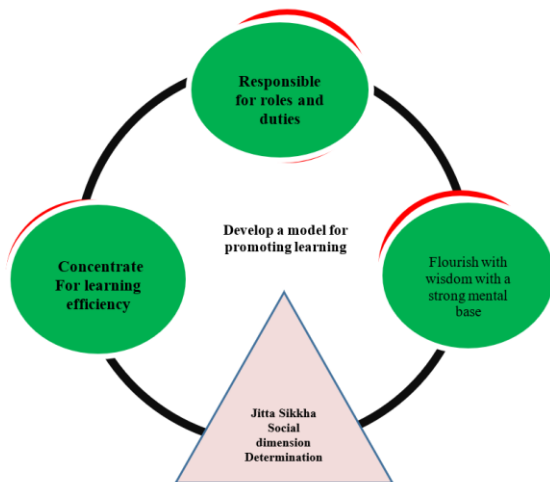
Fig.3 Develop a model for promoting learning
(Jitta Sikkha)

Format 3 Athipanya Sikka is to study wisdom, to train oneself to become clear wisdom including meditation. It creates the power of faith confidence admire the grace of the jewels. It is called the creation of the intellectual power of Buddhism, called "Panya Pho" because reciting the truth and teachings of the Buddha in various chantings will affect the mental health of the elderly. Elderly social health and a model to promote healthy learning and life of the elderly and learning theory of the elderly on health [9].
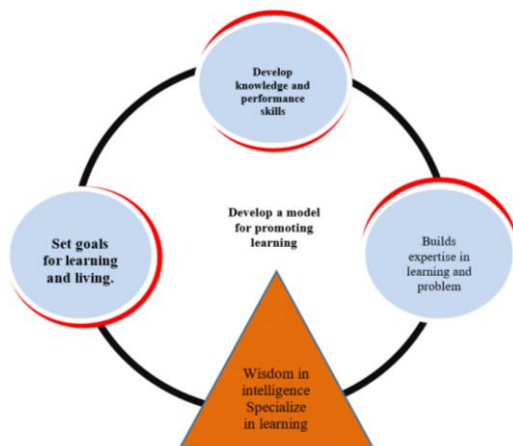
Fig. 4 Develop a model for promoting learning (Wisdom)

VI. DISCUSSIONS

1. Study the principles, concepts, theories of promoting lifelong learning for the elderly. Social welfare services to the elderly in Thailand. It also emphasizes defensive assistance services rather than proactively working in the community. The role of the public sector remains modular, lacking integration and collaboration at all levels and dimensions. The results of the study were synthesized by different models using the conceptual principles, and social role theory emphasizes self-worth. Family institution needs of the elderly in Thai society. They also want to live with dignity and want their children to be taken out to do outside activities among the elderly passed through 3 happiness activities 1) physical health activities, 2) second happy health activities 3) happy health activities through the principles of learning promotion 5 steps, step 1 determination of actions, step 2 planning, step 3 implementation, step 4 knowledge reflection, emphasize a multifaceted work method, aiming to achieve work in multiple dimensions that are linked to the elderly holistically by integrating both the health and social sectors, integrating the concept of action plan by analyzing data from the three aspects of the exam were 1) Athasilasikha is 4.65, 2) Athichittasikha is 4.71, and 3) Athiyasikha is 4.78. Overall is 4.77 in all areas studied, have a consistent concept. The results from the quantitative analysis of questionnaires from the study samples.

2. Develop a model to promote learning according to the three-fold principle for the elderly in administrative area of the Sangha Region 1.

1) Promote a happy coexistence with other ages in society, reduce the age gap, 2) Provide mental activities such as meditation, outings, hobbies, and 3) Promote activities community traditions such as various merit-making events, 4) organizing a meeting place for meetings of the elderly club and support the participation of the elderly club consistent with the concept (Woranyoon Rirom, 2016: 1) studied social well-being 1) promoting planning Saving among youth and working-age people. The goal is to serve as a welfare when entering the elderly, 2) Develop clubs and networks of elderly activities, build leaders that understand the job, 3) Social networking, caring for each other, friends help friends, 4) Develop rational learning, value awareness and dignity, 5) Promote family roles in caring for elderly as appropriate, intellectual well-being every activity. It is linked to the Trisikkha principle [10].

3. A model of learning promotion according to the Threefold Training for elderly in Sangha Administration Region 1.

1) Atthisilasikha, principles that can be used to train and develop oneself to be progressive, happy, able to solve problems in life properly, in accordance with the concept consistent with Nicharee Jaikhamwang's research, 2015: 1). The results of the research "Health Promotion for Sufficient Health of People Affected by Flood, Forest Water and Mud Lands, Lap Lae District, Uttaradit Province" summarizes the problems of the elderly including social, psychological, emotional and physical aspects. There are guidelines for solving the problems of the elderly physically, such as

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self-care of the elderly, their families and government agencies, psychological and emotional aspects, including the support of the family organizing social activities such as participation in the association of the Elderly Council of Thailand, creating self-care program for the elderly. The creation of occupational groups, health management models and self-preferences of the elderly Uttaradit province has 6 steps: self-planning, self-realization, creating a mentor for the elderly compliance with the elderly network participation plan and monitoring and evaluation [11].

2) Athijittasikkha is a practice for training the mind to achieve virtues such as high concentration. The separation of all things and evil. It is a practice for the elderly to practice meditation and to have activities together on the Dharma day for the elderly to reduce their identity and create love and unity in the group. From learning according to the threefold principle consistent with the concept of Phra maha Witun Siddhimethi (Bangsantia) has researched on "The development model of quality of life in Buddhist philosophy according to the various functions in the Dhammakon commentary", the results of the research found that the four aspects of quality of life development, namely physical, social (precepts), emotional (mind), and intelligence were analyzed through the Buddhist philosophical framework as evidenced by the personification story in the Dharma commentary. It has the main goal of solving life problems without focusing only on theory, but aims to make human beings aware of the implementation of the Dharma substance until it produces qualitative results that are correct and good to see the guidelines learned how to think understand how to follow the implications of various matters in the Dharma commentary until able to fully understand the essence of all conditions.

3) Panyasikkha, education develops clear intelligence in the area of physical health, elderly mental health makes the elderly with compassion, morality, ethics, as a tool for cultivating wisdom from learning according to Trisikkha principles related to Charoen Nuchiyom, 2018: 1) (Putthipat Lertchaowasit, 2011: 1). It was found that 1) the concept and theory of quality of life development through the integrated Buddhist method, develop the quality of life in physical, mental, mental and intellectual capacity to have self-reliance. 2) Developing the quality of life of the elderly through an integrated Buddhist method, and Elderly Health Promotion Center by bringing principles to promote the development of the quality of life of the elderly adhere to the precepts and psychological aspects, meaning that the elderly has good physical and mental health, 3) the development of the elderly quality of life through the integrated Buddhist method. As a result, the elderly adapt to understand the reality of living with society able to live happily.

The results obtained from this research were used 3 happiness activities, namely 1) physical health activities, exercises stretching carrying out daily activities, and promoting the elderly to exercise improving the physical health of the elderly, and can also lower your blood pressure which activities are held. Therefore, it is suitable for further development for the elderly community in Thai society. It is an activity that promotes health but brings happiness in exercising allowing the elderly to exercise by dancing and using the principles of psychology create a therapeutic laughter activity. It also promotes physical and mental health. 3) Healthy activities, performance by singing activity allowing the elderly to practice living skills together has exercised in the use of sound using music as a medium Later, there will be activities counting from 1 to 10, doing hand gestures, a flirtation, with activities to do each day promote physical and mental health brighten the mood. It is suitable for the elderly and takes advantage of their free time and has been synthesized as a body of knowledge from research as follows [12].

VII. BODY OF KNOWLEDGE FROM RESEARCH

Fig.5 The body of knowledge from the study is "The Trisikkha Learning Promotion Model for the Elderly in the Sangha Area Region 1".

VIII. RECOMMENDATIONS

The model of learning promotion according to the Threefold Training for elderly in Sangha Administration Region 1, the researcher has the following recommendations.

A. Recommendation for policy

1) Responsible and supervisory units are the main agencies with important missions in promoting and

developing capacity. Welfare arrangement should enter into action with relevant agencies to coordinate with the local government organization to provide management of care for the elderly in the community public health developing the quality of life by volunteering to care for the elderly and creating a network of the elderly to connect with the elders in other communities or villages.

2) The responsible agency should promote procedures taking into account necessity, physical condition, urgency and safety as well as the knowledge and expertise of the workers or cultural transfer activities or wisdom to enable the elderly to pass on the culture and local wisdom for recreational activities.

B. Recommendation for further research

1) Should research promoting and supporting mental health and physical health services of the elderly according to the Brahma Vihara IV, Iddhipada IV and the prayer of Dharma IV to promote the elderly to live happily.

2) Should research developing the quality of life of the elderly through the Buddhist method integrated with the elderly lifestyle according to the sufficiency economy philosophy.

3. Should research promoting learning on quality of life for the elderly through innovative processes and learning technologies for physical and mental health care.

CONCLUSION

Caring for the elderly not just taking care of just the body to be healthy, but it should be viewed in a holistic aspect ranging from physical, mental, social, environmental and mental health with a monk as a leader. It will enable the elderly to receive physical and mental care at the same time and have joint activities in the age group using measure as the learning center of the elderly. "Using a model to promote learning according to the Trisikkha principle for the elderly in the Sangha Area Region 1".

A. The three 3 principles

Principle 1 consists of principles of organizing merit-making activities of social contribution principles, and the practice of Vipassana and prayer.

Principle 2 refers to maintaining healthy physical and mental health, age-appropriate exercise, such as walking or cleaning temples or the magic garden under the wood create an atmosphere and stabilize the state of mind by determining knowing at all times.

Principle 3 emotional health aesthetics by exchange of knowledge with volunteer activities or Buddhist activities, offering alms to monks, and cultural tourism.

B. Three methods to do it.

Method 1: Join the temple at the temple practice steady meditation with meditation, and peace of mind, it will bring calmness, able to control the emotional state when there are things that do not wish to affect the mind.

Method 2 is strengthening faith and wisdom to life. Participating in religious activities must have faith in this means believing in something but according to the principles of Buddhism, faith refers to a belief that is rational, not ignorant. The doctrine of faith or belief that consists of reasons and problems, we can think of the cause and effect.

Method 3 is to be strong and grow with wisdom. Trained will not be shaken easily biased especially when there is a certain emotion, for example, if someone gets angry often angry in response to preparing the mind to be ready to use wisdom to consider and enlighten the truth to strengthen the mind must always try and practice because one's mind is a sly state restless. If there is a weak mind or have never been through mental training administration before may waver and fled to find friends.

C. Three Activities

Activity 1 When conducting physical health activities exercise, stretching, carrying out daily activities and promoting the elderly to exercise to reduce the weakness of the body and nowadays, NCDs are a major public health problem for the country. According to the Ministry of Public Health report, the top five community diseases in NCDs are hypertension, diabetes, musculoskeletal and cardiovascular disease. Skeletal and fat embolism, most of the patients found in the workforce and the elderly. From inquiries, it was found that the patients lacked exercise and consumed the wrong food causing health problems of people in the community. If people consume hygienically and exercise regularly, it can reduce the problem and also measure it by walking inside the temple, have activities to do together improving the physical health of the elderly and can also lower your blood pressure events. Therefore, it is suitable for further development for the elderly community in Thai society.

Activity 2 Health, happiness and fun activity second, it is an activity that promotes health but gives happiness in physical exercise or activities that the elderly perform with dances for the elderly to exercise by dancing and using psychological principles to help, create a therapeutic laughter activity. It also promotes physical and mental health because we have our heads and have enjoyed doing these activities.

Activity 3 Happy health activity performance based on singing activities to train memory; allowing the elderly to practice living skills together doing singing activities has exercised in the use of sound using music as a medium when doing this activity make fun of old people laughs, and when singing a wrong song. Later, there will be activities counting from 1 to 10, doing hand gestures, flirting, and having an assessment of depression. To reduce depression among the elderly and assessment of dementia, having activities to do on a daily basis promotes physical and emotional health,

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makes moods clearer, suitable for the elderly and makes good use of their free time.

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Self-Development Potential for Progressive Work

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Abstract— It is possible to develop ourselves to advance our career and collective work, even though self-improvement is very difficult. So, for the purpose of human resource development, the article identified the keys to personal development, based on the philosophy of VETS, namely V = Vision is the vision of the organization in the future, which is derived from wisdom, ideas, possible and consistent with goals and organizational obligations, E = Education is a method of human resource development that is necessary in one way because it increases the qualifications of human resources to have more knowledge due to technological changes adaptations, T = Training is to increase the knowledge, expertise, ability and change the attitudes, attitudes, feelings of the participants, S = Study tour is an activity that will help us to do the best practice. Study tour has many advantages, example, it helps to observe the business in other departments, their office operations, process of working, etc. These symbols should be in conjunction with the principle of path of accomplishment; basis for success (Iddhipada IV), consisting of 1) Chanta (satisfaction) is satisfaction or motivation, 2) Viriya (intention) is the indomitable intention, 3) Chitta (concentration) is a mind focused on work, 4) Wimangsa (check) is the use of intelligence to contemplate, contemplate, inspect, reason and examine even more slack, defect or failure, etc. in a business that has been known, tried, and thought to find solutions to improve. Following these principles will lead human being to develop their skills in working for oneself or for others to get a better life or to achieve the target goals of their organizations. Finally, achieving these goals will lead to one's happiness and ultimately will result to a successful and prosperous organization.

Index Terms— Self-Development, Potential, Progressive Work

I. INTRODUCTION

Self-improvement is where a person tries to change himself for achieving a better life. This can be achieved through behavioral change in response to the needs, motives or goals of oneself, and also to develop one's own potential, physically, mentally, emotionally and socially in order to become an effective member of society. Self-improvement is important to one's self for achieving a peaceful life and beneficial to the society or to the organization to which a person belongs. Therefore, development of self is an essential requisite for human society and for the success of an organization. It is an important and valuable tool for an organization all success in this age of competition. Thus, it is imperative for an organization to have a policy and plan that focus on personal development.

II. THE BASIC CONCEPT OF SELF-DEVELOPMENT

A person to develop himself must be committed to change or improve oneself. This will help to promote self-development. Key concepts of self-development are as follows: [1]

1. All human beings have their own valuable potential. So, it is possible to train and develop themselves in every matter.

2. As no person is perfect in every aspect, it is essential for oneself to develop more and more.

3. Even if a person knows himself best, he or she cannot adjust themselves in some areas. He or she cannot survive alone as he or she still need the help of others to develop themselves. Therefore, controlling one's own thoughts, feelings, and actions are important in controlling the external environment.

4. The main obstacle to self-improvement and development lies to the individuals because if they refuse to change their way of thinking and acting. Then, they are refusing to

create new habits or practice new skills which are necessary for themselves.

5. Self-improvement and development can be performed at any time and can be improved continuously when encountering problems or shortcomings about themselves.

III. THE IMPORTANCE OF PERSONAL DEVELOPMENT

Mission for each department in society, all societies require human resources to perform the task. Everyone has developed and improved himself to keep up with the working style or technology of the society. Development of techniques or new ways of thinking and skills are needed to improve performance and quality of individual-output. This helps neighboring agency to compete more qualitatively and efficiently with other societies, thus resulting in the overall economic stability of a country.

IV. BENEFITS OF PERSONAL DEVELOPMENT IN THE PROFESSION

At work, no matter what kind of career, an individual must be adaptable and flexible to achieve a successful career. This can be achieved with due consideration of their own interests and social responsibilities. Thus, self-development is very essential in building up a career. The benefits of self-development in Myanmar in Northeastern Thailand are as follows: [3]

1 . Improve knowledge and ability.

2. It helps to be confident.
3. Improve work efficiency.
4. Respect the professional society.
5. Assist in the progress of the work.

6. Lead to creative work.

Along personal development, it is essential to develop and enhance human relationships in every aspect, including occupation: [4]

1. Feelings that they have goals in life. People have to develop themselves to have goals in life, to have the future and to have hope by believing that he can develop himself. Therefore, there is a need to improve and change oneself in every aspect to have a better life.

2. Should possess a feeling of courage to interact well with others, people must develop themselves to have a feeling of courage and should have a strong determination to interact with others, and to help in building good interpersonal relationships.

3. Feeling open and humble, individuals must develop themselves to possess the necessary personal qualities by having a sincere feeling, open and be humble, to help in building good interpersonal relationships.

4. Feelings of faith and stability, a person must develop himself to have the personal qualities necessary, that is, to have faith in oneself. This will cause a feeling of pride in ourselves that we are one too. If we do good deeds, be diligent and patient, our life will be better, that is, having love and understanding people.

V. MASTER'S IN PROFESSIONAL PERSONAL DEVELOPMENT

Correct and continuous self-development leads to success. There must be a self-development to be ahead of the world, always up to date and be the role of self-development in every profession. It is an integration by linking the society with various professions together so as to be able to lead the right way in the future world with increasing knowledge and experience and being up to date always. Everyone in every profession can achieve self-development. Therefore, every profession must have two main self-development principles: [5] [13]

1. Self-development according to general principles (Human resource development principles).

2. Self-development according to Buddhism.

VI. SELF-DEVELOPMENT PRINCIPLES (HUMAN RESOURCE DEVELOPMENT)

Self-development principles for human resource development for increasing work efficiency, it is essential to develop human resources. One of the keys aims of human resource development is to improve the performance of individuals, groups, and organizations. Human resource development plays an important role in the performance of an individual and the work that should be accomplished in the work process. This will help to achieve the target results [6].

Human resources are the organization that have the most valuable resource, and helps to develop the characteristics of a person into a good and valuable resource of that organization. It helps to develop a person having knowledge and competence in the profession for which they are responsible, have a positive attitude, increase their creativity and outlook. Finally, acquiring these principles will help individuals to be able to adjust themselves to keep up with the changes of society and environment, adapt to the modern technology requirement. Therefore, individual development in the organization is essential to help the organization's success and achieve the organizational goal [7].

In this regard, in self-development or human resource development, VETS must be adhered to, which is the key to self-development or effective human resource development. VETS consisted of V = Vision, E = Education, T = Training, S = Study tour, described as follows: [8]

1. V = Vision is the vision of the organization in the future, which is derived from wisdom, ideas, possible and consistent with goals and organizational obligations. The

images are based on reality, credibility and mandatory to follow. This will make the organization to have a better condition than it is today.

2. E = Education is a method of human resource development that is necessary in one way because it increases the qualifications of human resources to have more knowledge due to technological changes adaptations. Knowledge which cannot be applied or used is obsolete. Therefore, it is imperative to send people to study further to advance the acquired knowledge, both nationally and internationally. We sometimes need to gain knowledge from abroad and this gained knowledge, abilities and experiences can be applied to the native country for himself as well as transmit to fellow beings to improve their selves. This imported knowledge may help to improve the performance of the department for higher efficiency.

3. T = Training is to increase the knowledge, expertise, ability and change the attitudes, attitudes, feelings of the participants. So that they can perform their duties efficiently, able to fix flaws in current work and perform their work successfully in the future, as well as preparing people to take up a position of higher responsibility. All these tips are essential for effective human resource management.

4. S = Study tour is an activity that will help us to do the best practice. Study tour has many advantages, example, it helps to observe the business in other departments, their office operations, process of working, etc. These observations will provide us ideas which can be applied in our office operations as well as various obstacles available in some departments.

VII. Principles of Human Resource Development in accordance with Buddhism

Human resource development in accordance with Buddhism, there are many principles and teachings of the Lord Buddha, one of which is Iddhipada IV, which is important for getting success. The starting point for success is to develop the right people, as humans are not alien from the realities of nature, from the very basics, everything is consistent, nothing is broken. On this basis, we can apply different principles to our work environment. Based on correctness, we can decide whether the foundation is right, what Dharma we use now is going well, and all these are the principles of success [9].

In this regard, acquiring Dharma is considered as the ladder of success in the practice of all things, consisting of ambitiousness, satisfaction in the matter that we will do, persistence, perseverance and not give up in the undertaking of that business. In this regard, Wimangsa must continue to work on it, the four ladders to success as mentioned above [10] [11] [12].

1. Chanta (satisfaction) is satisfaction or motivation. This is something that can be created. If we study the job thoroughly, then we know how to work and achieve the purpose of that job very well. This will help to get job satisfaction by having a positive attitude.

2. Viriya (intention) is the indomitable intention. They are not afraid of obstacles and hardships when people know what is worthy of attainment. Although we know that the goal would be very difficult to reach as there were many obstacles, or it could only take a year, we should not give up, but try to perform it as a challenge and to overcome the difficulties to achieve the target goal.

3. Chitta (concentration) is a care or always concentrate on it, check how much work has been done, how much is left to be successful? What obstacles or flaws are there in work?, or that work is done smoothly. Chitta will be depending on me and persistence. If there is a lot of satisfaction, a lot of diligence, and a lot of attention, it is a direct focus on success quickly.

4. Wimangsa (check) is the use of intelligence to contemplate, inspect, reason and examine even more slack, defect or failure in a business that has been known, tried, and thought to find solutions to improve.

If we follow the four main frameworks, namely 1) love of work, 2) perseverance in work, 3) mind focused on work, 4) analysis, synthesis, creativity, and development. We will be able to the development of work skills, not only for oneself but also for others for the betterment and progress of society in order to achieve the goals of the organization. This will make oneself, others and the organization to be more happy and prosperous.

VIII. Holistic View of Human Resource Development according to Buddhism

Self-development principles or human resource development is essential for increasing work efficiency the important aim of human resource development is to adhere to VETS, which is considered the key to self-development or human resource development. Therefore, self-development is essential for human resource development according to Buddhism. There is a doctrine of Lord Buddha, that is Iddhipada IV which is considered essential to achieve success in one's life. The starting point for success according to the Buddhist way of human resource development can be explained as follows:

1. Vision and Chanta (satisfaction)

For human resource development, it should start with a good vision to create a positive attitude of people to the organization to understand policy and command and help workers feel that they are part of the organization. Visualize the future that you want to be that is unique.

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There is a method of action that has a direction and scope that leads the organization towards its goals. So, when a good vision occurs, good attitudes will bring joy and satisfaction in practice, wanting to accomplish that good goal or work, guiding us to move towards a successful destination until the work results to efficiency.

2. Education and Viriya (intention)

For human resource development, this is considered important in education practice to acquire additional knowledge (Education) to get to know new academic. There are various techniques or methods for appropriate management of the organization. In addition, additional knowledge of the individual must be used, including perseverance (persistence) in the study of various academic research to be applied in practice. This can be enhanced with further education because education helps to develop thinking and education makes people intelligent and can also make people above the people.

3. Training (training) and Chitta (concentration)

Training (Training) is considered essential to develop human resources, to increase knowledge, expertise, ability to be able to perform their duties effectively in the workplace. The training is an enhancement of education to enhance various academic subjects other than systematic education by training or seminars on specific academic. This training will develop from painstaking education to the original cost. Therefore, the commitment (Chitta) to develop performance that takes care and attention in their work to be clearer.

4. Study tour and Wimangsa (Check)

Study tour in human resource development is to observe the work of other departments or organizations that will not lose the direction in the management of the organization. In this study visit, an individual will have the opportunity to see the actual performance of various organizations as well as inspect (Wimangsa) to find the strength and weakness of the departments or organizations. This study tour provides the chance to look the work environment and the knowledge gained from observation can be applied in the proper management of their own organization, after careful analysis, synthesis, creativity, development. Ultimately, it will lead to the development of skills in the work of oneself or of others to improve, to achieve the goals of organization. This will make oneself, others and the organization to be happier and more prosperous.

Therefore, it can be summarized in a diagram as a body of knowledge and application of human resource development as follows.
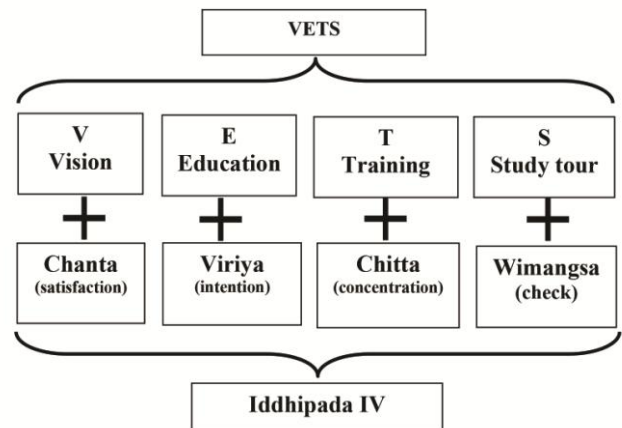
Fig. 1 Knowledge and application of human resource development: Phrakrukosolpariyattayanukij (Tharueti Rungchaiwitoon)

CONCLUSION

It is possible to develop ourselves to advance our career and collective work even though self-improvement is very difficult. Therefore, for the purpose of human resource development, the article identified the keys to personal development based on the philosophy of VETS, namely V = Vision is the vision of the organization in the future, which is derived from wisdom, ideas, possible and consistent with goals and organizational obligations. E = Education is a method of human resource development that is necessary in one way because it increases the qualifications of human resources to have more knowledge due to technological changes adaptations. T = Training is to increase the knowledge, expertise, ability and change the attitudes, attitudes, feelings of the participants. S = Study tour is an activity that will help us to do the best practice. Study tour has many advantages, example, it helps to observe the business in other departments, their office operations, process of working. These symbols should be in conjunction with the principle of path of accomplishment; basis for success (Iddhipada IV), consisting of 1) Chanta (satisfaction) is satisfaction or motivation, 2) Viriya (intention) is the indomitable intention, 3) Chitta (concentration) is a mind focused on work, and 4) Wimangsa (check) is the use of intelligence to contemplate, inspect, reason and examine even more slack, defect or failure in a business that has been known, tried, and thought to find solutions to improve. Following these principles will lead human being to develop their skills in working for oneself or for others to get a better life or to achieve the target goals of their organizations. Finally, achieving these

goals will lead to one's happiness and ultimately will result to a successful and prosperous organization.

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An Enhancement of Human Relation Integrating Buddhist Principles for Administrators of Primary Schools in Thailand

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Abstract— The purpose of the research article was to propose the enhancement of human relation integrating Buddhist principles for administrators of primary schools in Thailand. Mixed methods research was used for research design. Questionnaires was used for data collection from 390 administrators and teachers in primary schools. Interview form was designed for interviewing 24 key informants, including focus group discussion with 9 experts. Qualitative data was analyzed by using content analysis whereas descriptive statistics was used to analyze quantitative data analysis. Results indicated that the enhancement of human relation integrating Buddhist principles for administrators of primary schools in Thailand can be developed through 3 aspects consisting of 1) personal characteristics, 2) understanding others, and 3) working with others, and analysis results showed at a high level in all aspects. For the integrating of human relations with Buddhist principles for administrators in primary schools in Thailand composed of 1) the principles of human relations for school administrators. In communication, both formal and informal between the school administrators and teachers, students and the community in order to work together to achieve the objectives divided into 3 areas which were (1) personal characteristics, (2) understanding of others, and (3) working with other. 2) Buddhist principles used in school administration, it is the Buddhist Dhamma principle which is integrated with human relations principles, consisting of 7 things which are (1) Kalyanmittita, (2) Yonisomanasikara, (3) Gracing virtues II, (4) Honesty III, (5) Secular Theology IV, (6) Sangahavatthu IV, and (7) Sappurisadhamma VII. The guidelines for the enhancement of human relation integrating Buddhist principles for administrators of primary schools in Thailand focused on 3 aspects: 1) Principles of human relations, 2) Buddhist principles used in school administration, 3) principles of school administration. The operation enhancement can be divided into 4 aspects of the school, which were (1) academic administration, (2) budget administration, (3) human resource management, and (4) general administration. The body of knowledge from this research can be divided into 3 areas as follows: Personal characteristics by integrating Buddhist principles. In understanding others is to be able to integrate with the Buddhist principles in 3 topics which are Kanlayanamitta, Yonisomanasikara and Gracing virtues II. In working with others is able to integrate with the Buddhist principles with 2 principles which are Gharavasa Dhamma IV and Sangahavatthu IV.

Index Terms— Human Relation, Buddhist Principles, Primary Schools Administrators

I. INTRODUCTION

When humans are social animals that must interact with each other having to live together including friends, school friends, playmates, colleagues, and family members in the community, society, nation organization, there is a need to use human relations as a bridge for good relations with each other. Processes in human relations expressed in the form of motivation or create satisfaction according to the principle of human relations is important to every step of administration. Political organization is good, government agencies are good, business work, companies or industrial affairs as well as various associations will progress and proceeded to achieve the objectives partly depends on the talent of the management or supervisor in research planning

or management. That is as follows: because human relations is a tool to create generosity and works. How smoothly the work can be performed depends on the integration of human relations with Buddhism well and correctly. This is because good interpersonal relations will help promote work with the group to have unity and unity. If the group loses good human relations, both vertically and horizontally on the chain of command. There will only be quarrels and confusion causing the group or organization to work to achieve results well. There is also no happiness in which to join in building faith in the work to happen.

Management is responsible for everything in the organization especially for the educational administration that will satisfy everyone, it is impossible to maintain

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kindness, and do not dare to argue that it will reduce the efficiency of the work. Therefore, executives must know how to use human relations in the administration with sincerity and seriousness in the work, have discretion in making decisions in the administration to ensure smoothness, reduce conflicts and has high efficiency. Qualifications in interpersonal relationships is therefore important to all types of people and all positions of educational administration at the heart of this quality lies in the respect, dignity and well-being of a person a good attribute of an executive should be characterized by a good talk. It is an encouragement to everyone congratulate and give colleagues opportunities to be successful empathize with others, create the best, livable and happiest images of work for everyone. There is a sense of ownership of the place together, eliminate conflicts and know how to control one's emotions to find a way to achieve cooperation the faith of all personnel. Therefore, executives must build human relations and need to know and understand themselves well. Because knowing oneself will make us understand who we are as a person, knowledge, ability, social status, values, dignity, needs and mind, what's virtue, what's bad, knowing ourselves will enable us to behave properly and accept the truth in what makes up ourselves as a guide for us to accept and understand more people as well. Executives who desire success in management must have good interpersonal relationships with all colleagues. The knowledge and competence of the executives alone will have only 20-30 percent of the success of the work, but if the group has good interpersonal skills, it will increase the efficiency of the performance of 80-90 percent. In school administration, it is important for the school administrators and worker since it is a management tool to help build good relationships achieving an understanding of trust that helps smooth operations effectively coordinate to achieve school goals to operate in accordance with the goals that have been set to be successful inevitably depends on colleagues Because administrators have to work with teachers, in order to work successfully. Human relations are also very important because some of them are capable and knowledgeable. Difficult results even though the management has a lot of knowledge but without good human relations with teachers. It is believed that the management does not achieve its objectives (Wirayut Chatakan, 2009: 37) [1].

In the school administration, administrators need to have a good understanding of interpersonal and interpersonal skills because the management has to work with many types of people Executives must have good personal qualities. To understand oneself through self-study at the same time, it must be studied in order to understand others and able to work with others (Rattikorn Chongwisarn, 2008: 190) [2]. To use only power in administration, it is not, it will cause problems and great difficulties. On the other hand, Executives with poor personal attributes don't understand

others and unable to work with others will not be able to manage the school to run well or achieve the objectives set. Therefore, administrators should have a lot of human relations with teachers because it will cause cooperation and cooperation in working very well help to understand each other create unity and unity causing kindness to work. Administrators will be able to win teachers' hearts, and be the one your teacher believes in honor and loyalty. Teachers will work willingly, and it will make school administration run smoothly and successfully (Green, Jack Coulson, 2005: 3913) [3].

In this regard, performing school administration duties must be an empathetic person. It is necessary to train oneself to qualify according to the virtues of Buddhist principles which are principles related to the governance and care of people that should be there as an anchor for the mind and direct the behavior. Therefore, it is known to live a transparent life pure and behave by nature both myself and others to make the school administration most beneficial. This is consistent with the research of Worapas Prasomsuk (2006: 199) [4] that has been researched on "Principles of education administration according to Buddhadhamma", the results of which were found that 7 principles are consistent with the principles of education administration in self-dominance, occupation of workers, namely Kanlayan Mittata, Yonisamanasikarn, Dhamhaigam II, Sujarit III, Garasadham IV, Sangahavutthu IV, and Sapphurisadham VII, which the researcher has applied the results of this research to continue this research in order to make the school management successful and achieve objective. Goals were set Efficiently by focusing on the interpersonal relationship of school administrators that is considered an important factor that allows the operation of various aspects to be smooth, created cooperation with each other in the work. Therefore, school administrators should build human relations with teachers relevant personnel for school success school administration, therefore, it is necessary to have guidelines on the principles of administration according to the manual for the administration of juristic institutions. This has the concept of school administration. The school administrators need to have principles in conjunction with school administration to make the work related to the organization of the administration of other service organizations to achieve the quality standards and goals set. Therefore, the researcher is interested in researching the integration of human relations with Buddhist principles for elementary school administrators. The obtained research results can be used for determination and integration. Appropriate application of school administration as well as being able to utilize the research results as a guideline for consideration, improvement or integration school administration that can be integrated with Buddhist principles for further efficiency.

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II. RESEARCH OBJECTIVES

The purpose of the research article was to propose the enhancement of human relation integrating Buddhist principles for administrators of primary schools in Thailand.

III. RESEARCH METHOD

This study Researchers used a survey research model, along with In-depth Interview and Focus Group Discussion, which was a mixed methods research between quantitative research and qualitative research by analyzing data from documents, textbooks, statistical data, research reports of various departments, academic articles, dissertation, as well as relevant research work, and a formal in-depth interview by using the interview questionnaire created by the researcher to study the opinions of the school administrators who are the target groups as a case study, there were 390 sets of questionnaires distributing to the administrators and elementary school teachers of Bangkok Metropolitan Administration, interviews with key informants are 20 school administrators and questionnaires for focus group discussion with 11 experts. The researcher collected the data and analyzed the data as follows: 1) qualitative data was analyzed by using content analysis, 2) quantitative data were analyzed by using percentage statistics, frequency, mean, standard deviation. Data from interview and focus group discussion were analyzed by using content analysis and summarizing results research objectives.

IV. RESEARCH RESULTS

The results of studies on human relations and Buddhist principles for school administrators, and opinions towards the integration of human relations with Buddhist principles for elementary school administrators. The 3 aspects of Bangkok Metropolitan Administration consisted of 1) personal characteristics, 2) understanding of others, and 3) aspects of working with others, overall at a high level while each aspect was at a high level in all aspects.

The results of the study on the integration of human relations with Buddhist principles for elementary school administrators integrating the principles of human relations with the principles of Buddhism; For elementary school administrators Bangkok Metropolitan Administration consists of 1) principles of human relations for school administrators. It is the expression level of school administrators. In communicating and coordinating both formal and informal between school administrators and teachers, students and the community in order to cooperate in working to achieve the objectives, divided into 3 areas: (1) personal characteristics, (2) understanding of others, (3) working with others. 2) Buddhist principles used in school administration. It is a Buddhist doctrine that is integrated with the principles of human relations, consisting of 7 things: (1) Kalayanamitta, (2) Yonisamanasikarn, (3) Dhamhaigam II, (4) Sujarit 3 (5) Garasadham IV, (6) Sangkhahavatdham IV, (7) Sapphurisadham VII.

The results of the presentation of guidelines on the integration of human relations with Buddhist principles for elementary school administrators, presentation of the integration of human relations with Buddhist principles for elementary school students under the Bangkok Metropolitan Administration (3 Flowers Model) must have 3 important focus points: 1) Human relations for school administrators. It is the expression level of school administrators. In communicating and coordinating both formal and informal Between school administrators and teachers, students and the community in order to cooperate in working to achieve the objectives, divided into 3 areas: (1) personal characteristics, (2) understanding of others, (3) working with others, 2) Buddhist principles used in school administration, it is a Buddhist doctrine that is integrated with the principles of human relations, consisting of 7 things: (1) Kalayanamitta (2) Yonisamanasikarn (3) Dharma makes beauty 2 (4) Sujarit III, (5) Gharavasa Dham IV, (6) Sangkhahavatthudham IV, (7) Sapphurisadham VII. 3) Principles of school administration, It is the operation in working in four areas of the school, including (1) academic administration, (2) budget management, (3) personnel management, and (4) general administration.

V. DISCUSSIONS

Integrating the principles of human relations with the principles of Buddhism for elementary school administrators. The 3 aspects of Bangkok Metropolitan Administration consisted of 1) personal characteristics, 2) understanding of others, and 3) aspects of working with others, in overall at a high level while each aspect was at a high level in all areas. Integration of human relations with Buddhist principles of school administrators under Bangkok Metropolitan Administration have good interpersonal relationships. It is highly effective, which is consistent with the research of Eaamon Chonlaworn (2012) [5]. The results showed that there are two types of knowledge: tacit knowledge and explicit knowledge in the knowledge management process trying to bring the knowledge deeply ingrained in people through the exchange of knowledge interact together although there are many different methods of knowledge management. However, the researcher sees that the knowledge management process is often limited by many factors, which may cause the knowledge management process to fail to function fully, while when considering knowledge management in Buddhism, it is seen that there is inheritance. The body of knowledge has been through a long period of 2,600 years, which is very long, demonstrating the process of knowledge management in Buddhism is a very

efficient process, thus able to maintain the whole body of knowledge. Guideline and the righteousness by the researcher that there are four categories of outstanding principles in Buddhism which can lead to the succession process. In building a society to understand each other, the creation of a learning process from within with the principles of conscience; the process of organizing the body, poetry, dharma and discipline into categories, easy to remember and implement; and the monastic society building process including discipline and the method of practice on the formation of monastic groups from knowledge in the area of knowledge management and the body of knowledge in Buddhism. In the past, the researcher has applied all four categories of Buddhism to create an integrated Buddhist knowledge management model. The researcher started from applying the knowledge spiral model of Ikujiro Nonona. The shift (Ikujiro Nonaka), called Seki (SECI), came as the main idea of the practice. It has four elements: (1) socialization (socialization), (2) extraction of knowledge from the person (Externalization), (3) knowledge integration (Combination), (4) to combine knowledge in oneself (Internalization) is the dynamic that is rotated in a spiral (spiral) creating endless new knowledge, then bring the above 4 categories of Buddhism to strengthen the driving force to drive which was proposed as a new model. After that the aforementioned model was used to examine the knowledge by experts with a focus group process concluding that an integrated Buddhist knowledge management model was available to be used in the general organization. It is also consistent with Magnuson research (2001) [6] researching the characteristics of successful school managers. The characteristics of school administrators were classified into two characteristics, namely occupational characteristics, (Professional Characteristics) and personal characteristics (Personal Characteristics) have summarized the professional characteristics that should have the ability to communicate with and understand others well, pay attention and listen to the opinions of others. For the personal features of that, it should consist of you integrating the principles of human relations with the principles of Buddhism. For elementary school administrators Bangkok Metropolitan Administration consisted of 1) principles of human relations for school administrators. It is the expression level of school administrators. In communicating and coordinating both formal and informal between school administrators and teachers, students and the community in order to cooperate in working to achieve the objectives, divided into 3 areas: (1) personal characteristics, (2) understanding of others, (3) working with people others and 2) Buddhist principles used in school administration. It is a Buddhist doctrine that is integrated with the principles of human relations, consisting of 7 things: (1) Kalayanamitta (2) Yonisamanasikarn (3) Dharma makes beauty 2 (4) Sujarit III, (5) Gharavasa Dham IV (6) Sangkhahavatdham IV, (7) Sapphurisadham VII, which is consistent with the research results of Pattanasorn Kiatthitikun (2014) [7], on the model of integrating Buddhism principles in the development of efficiency Operation of the municipal authorities,

the results of the research showed that 1) the performance of the municipal officials Bangkok Organization Organized according to the policy of Bangkok to facilitate the general public using sidewalks. It should let everyone follow the rules reduce indirect problems Bangkok policies are clear in the use of public spaces and safety care to strengthen the police by inspecting the area maintaining safety in service and facilitation nature which had to risk a disaster in inspecting the area both during the day and at night. For traffic supervision and traffic facilitation, the municipal officer is an assistant traffic officer, it does not a traffic officer. Therefore, in performing work, special care must be taken. This is because there is no law to support the performance of their duties and should provide the necessary tools to perform their work tourism administration. In order to facilitate tourists and represent public relations, along with the supervision of safety and organization at the same time, other special missions are a reinforcement and help coordinate with officers of other relevant departments such as police officers, firefighters, rescuers, electricity and water utilities. 2) Buddhist principles were integrated into their operations at a high level. Considered by in descending average order, we found that integrating the precepts to organize followed by integrating the principles of safety integrating the principles of peace in tourism administration. The integration of the existential principles in the care of other special and least missions is the integration of the compassionate principles. 3) Presenting the model of integrating Buddhism principles in the development of the efficiency of traffic performance of the municipal officer Bangkok, the "Big.CAMP Model", which corresponds to Love Bangkok policy to create Bangkok as a city that is livable and worth visiting. Precepts B = Behavior refers to the control of behavior, both physical, speech and mind in the work to comply with the city organizing policy allowing everyone to use the public space together safely through their own internal controls (Internal), such as encouraging the municipal officers to have courses to join the training morality, together with the MCU, and in acting with the general public (General), C = Control means tolerating difficulties in performing work, tolerating the rigors of the working environment, and tolerating the incomprehensibility of traders and people, A = Action refers to acts that express help, goodwill, generosity, such as helping to organize traffic in the morning – evening, taking into account the safety of the people, complimenting words, M = Morality means speaking polite, humble, sincere, suggesting something useful, build human relations with the audience with a smile, good-natured, able to publicize, recommend routes and important places to tourists and people who pass by, to assist tourists with willingly like relatives knowledge of local culture and attitude, P = Public Mind refers to volunteerism, enthusiasm for performing duties, strive to help by organizing a duty check out at regular intervals in order to monitor the safety of the people and also consistent with the research of Vasita Kerdpholprasopsak (2014) [8] researched on "Buddhist Integrated Management Model of Local Administrative Organization". The findings were as follows: 1) the overall management of the local government

organization was at a high level, but there were still various problems in the administration, not according to regulations, budget allocation problem, does not meet the needs of the community, and the problem of inadequate and inadequate public service. The construction problem of public utilities does not meet the needs of the community. The personnel management lacked knowledge and competence in each area. 2) The study of theoretical concepts and Buddhist principles related to the integrated Buddhist management, it was found that the use of the principle of Iddhipada IV was used as the main guideline for integrated administration and there are principles of Brahma Vihan IV, Sangkhahavatthu IV, Dithitthammikatthaprayoy IV as components. 3) The Buddhist model of integrated administration of local government organization found that the local administrative organization. There are 3 integrated building techniques (3C): co-ordination, co-operation, and consistency in the administration of local government organizations at 3 levels: Provincial administrative organization, municipality and administrative organization district. There are three aspects of local work: finance, personnel and participation by local work groups.

Presentation of the integration of human relations with Buddhist principles for elementary school students under Bangkok (3 Flowers Model) must have 3 important focus points: 1) Human relations for school administrators. It is the expression level of school administrators. In communicating and coordinating both formal and informal between school administrators and teachers, students and the community in order to cooperate in working to achieve the objectives, divided into 3 areas: (1) personal characteristics, (2) understanding of others, (3) working with people others, 2) Buddhist principles used in school administration. It is a Buddhist doctrine that is integrated with the principles of human relations. 3) Principles of school administration, it is the operation in working in four areas of the school including (1) academic administration, (2) budget management, (3) personnel management, and (4) general administration.

This is consistent with the research results of Pramote Chanboonkaew (2014) [9], on "Buddhist Integration to Promote the Strengthening Strategy in the administration of the Royal Thai Police", the research found that 1) the concept, theory, strategy, personnel development and Buddhist principles for personnel development of the Royal Thai Police found that there was a clear target establish appropriate work plans (Working), selecting resources that are ready, setting plans for assessments or indicators of success as possible, and responsible organization and agency level. Determination of duties (Function) and roles in promoting strategies for strengthening management in all four areas consisted of good governance by adhering to the principles of global virtue is him and her for strengthening the organization as for the stakeholders and the public, service recipients were satisfied with the administration of the Royal Thai Police by leading the threefold. This is the principle that can develop good behavior in police (precepts), who are committed to performing their duties

(concentration) and knowledge in solving problems for people (intelligence) for effective management processes that it creates a satisfaction in police officers and (a) self-determination, full of knowledge and ability to serve the people (persistence), are determined, concentrated, concentrated on the mission assigned to achieve the goals set by the organization (Chitta) and have understanding in performing duties, having knowledge and reflection according to operational procedures (Wimangsa) and police officers have high performance in performing their duties and have applied technology system in management, found that personnel have negligence. The consciousness is aware of the change in technology. They are wise to use technology that is appropriate for themselves in the situation, and aware of their dangers can build immunity for themselves including knowing how to prevent crime that comes with various modern technology. 2) The general condition of the personnel development of the royal Thai Police found that the obstacle of personnel development was that the people were dissatisfied with the police officers' performance. Many aspects of the Royal Thai Police and thus making the administration less efficient because the police have too much workload instructions to take action not appropriate in some areas. There is a patronage system in the organization. The duty audit system is not yet serious. In terms of high performance in performing duties and applying technology systems in management, it was found that the performance of the police officers under the Royal Thai Police. There are still many weaknesses in technology adoption because staff still lack the skills, expertise, knowledge and technology capability. 3) Integrated Buddhism to promote the strategy to strengthen the administration of the Royal Thai Police: 1. The administration based on good governance principles is based on the aim of cultivating an attitude of intolerance to people who practice evil and the creation of a system of suppressing people who do not fear evil increase the maximum penalty for those who behave evil along with praising the good police. 2. People involved and the public service recipients were satisfied with the administration of the Royal Thai Police, stay at self training Developing good communication skills creating an organizational culture and being open to listening to the people. 3. Efficient management processes is in the cultivation of your ideological power that the police bring love career faith efforts, attention and consideration in the performance of duties. 4. To promote police officers to have high performance in performing their duties and to adopt technology systems in management which personnel must have intelligence, consciousness, set in precautionary measures. Turn the crisis into opportunities and be aware of the use of technology in management services.

It is consistent with the research results of Passa Pasatta (2015) [11], on "Integrating Buddhism principles in the management of transparency of the local government organization", it is about conditions, problems and obstacles in the management of the local government organization in terms of transparency. The implementation of the rule of law to create transparency in the administration consists of 3 important issues:

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1) Rules, 2) Regulations, 3) Laws on management and performance of duties of executives and personnel. The leadership of participation to create transparency in the administration consists of 3 important issues: 1) co-think 2) co-act 3) co-examine the management and performance of duties of executives and personnel. The implementation of responsibility to create transparency in the administration consists of 3 important issues: 1) self responsibility, 2) local community responsibility, 3) social responsibility. In the administration and performance of duties of executives and personnel 2. In applying the principles of governance and governance to practice in order to create transparency in management, namely 1) the shame of the actions of wrong 2) fear of wrong doing in bringing the principles. The principles of good governance are applied in practice to create transparency in management, namely 1) regular meetings; 2) meeting together in unison, doing things that should be done; 3) do not command what is not overthrow what is ordained; 4) Any of you are adults in the community and respect them, saw your words as something to be heard; 5) All the dignitaries to live well without being persecuted; 6) respect the pagoda; 7) Provide protection, protection, righteousness to all Arahants in order to come up with a good direction in the administration and performance of duties of executives and personnel and in applying the principles of Buddhism and good governance to practice in order to create transparency in management. According to Buddhist principles, there are Buddhist principles that are appropriate and comprehensive in management, both at the individual level by applying the principles of world class Dhamma, which is a principle that reminds oneself to think good, perform good, and implement the 7 principles of principle of working together in unity, respect and respect, and when it is integrated with good governance with the rule of law Principle of participation and responsibility to create transparency of the local government organization. 3. Integrating Buddhism principles in the management of transparency of the local government organization by integrating Buddhism principles together with good governance principles, there are 3 main forms of management of the local government organization, including the form of integrating Buddhism principles for transparency, in the administration of local government organizations in the area of law participation, in responsibility a model of integrating Buddhism principles for transparency in the services of the local government organization in the area of law of law in the field of participation, in the responsibility and the integrated model of Buddhism for transparency in supporting the local government organization in the area of law of law, in the field of participation in responsibility by implementing a model of integrating Buddhism and good governance in the administration, service and support work for transparency of the local government organization to provide complete integration and it is appropriate to apply in the performance of duties of executives and personnel for sustainable development.

VI. RECOMMENDATIONS
A. Recommendations for practice
Research results on integrating the principles of human relations with the Buddhist principles of school administrators which from the study results. The researcher has the following recommendations.

1. Personal characteristics school administrators should focus on self-control that is a model in terms of economy and there is a personality to be strengthened to have a sense of humor on appropriate occasions.

2. Understanding of others school administrators should focus on strengthening teachers' morale. For the success of the work and pay attention to follow up and inquire about operational problems and to take care of the happiness of teachers.

3. Collaboration with others School administrators should be interested in giving advice and thinking in solving teacher performance problems. There is a clear written instruction for the teacher performance, convey meaning that can be put into action and there is a systematic planning, monitoring, evaluation, and performance report.

B. Recommendations for further research
If there will be further research on the application of the interpersonal principle of school administrators. The researcher would like to suggest conducting research in the following way:

1. Should study the factors affecting the human relations of the executives in elementary school in educational areas.

2. Should be studied in a research that narrows the scope of the research area, and should be defined as a study area only.

3. Should study other factors that affect the principles of human relations with the principles of Buddhism such as activity management educational innovation.

4. Should study the application of other Buddhist principles, such as the Iddhipada IV, the Brahma Vihara IV, in particular areas that can be applied to the human relations of the school administrators.

CONCLUSION
Principle of interpersonal relations for elementary school administrators, the 3 aspects of Bangkok Metropolitan Administration consisted of 1) personal characteristics, 2) understanding of others, and 3) the overall collaboration with others at a high level, while each aspect was at a high level in all aspects. Buddhist principles for elementary school administrators Bangkok Metropolitan Administration consists of 1) principles of human relations for school administrators. It is the expression level of school administrators in communicating and coordinating both formal and informal between school administrators and teachers, students and the community in order to cooperate in working to achieve the objectives, divided into 3 areas:

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(1) personal characteristics, (2) understanding of others, (3) working with others. 2) Buddhist principles used in school administration, it is a Buddhist doctrine integrated with the principles of human relations, consisting of 7 things: (1) Kalayanamitta (2) Yonisamanasikarn (3) Dharma makes beauty 2 (4) Sujarit III, (5) Gharavasa Dham IV (6) Sangkhahavatdham IV, (7) Sapphurisadham VII. For an approach to integrating human relations with Buddhist principles for elementary school administrators under the Bangkok Metropolitan Administration (3 Flowers Model), there must be 3 important focus points which are 1) Human relations principles for school administrators. It is the expression level of school administrators in communicating and coordinating both formal and informal between school administrators and teachers, students and the community in order to cooperate in working to achieve the objectives, divided into 3 areas: (1) personal characteristics, (2) understanding of others, (3) working with others. 2) Buddhist principles used in school administration. It is a Buddhist doctrine that is integrated with the principles of human relations. 3) Principles of school administration, it is the operation in working in all four areas of the school: (1) Academic Administration, (2) Budget Management, (3) Human Resource Management, (4) General Administration. From this research (Rainbow Dhamma Model) can integrate human relations with Buddhist principles for elementary school administrators under Bangkok Metropolitan Administration, it is divided into 3 areas as follows: personal characteristics able to integrate with Buddhism principles in 2 topics: Sujarit III and Sapphurisatdham VII in understanding of others. It can be integrated with Buddhist principles in 3 topics: Kalayanamitta, Yonisamanasikarn, and Dharmahaingam II able to integrate with the principles of Buddhism in 2 topics, Gharavasa Dham IV and Sangkhahavatthu IV.

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Model of Activity Development to Promote Students' Morality in Primary School

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Abstract— The purpose of this research was to propose a model of activity development to promote students' morality in primary schools under the Office of Primary Education Service Areas. Mixed methods research was used for the research design. The target group were 17 key informants and 24 school administrators whereas 400 school teachers were used for data collection. Content analysis was used for qualitative analysis, and quantitative data were analyzed by using percentage statistics, frequency, mean, and standard deviation. Results showed that students' morality was developed through 5 aspects consisted of 1) Sufficiency, 2) Gratitude, 3) Integrity, 4) Responsibility, and 5) Moral ideology, and analyzed results were shown at a high level in all aspects. A model of activity development to promote students' morality in primary schools composed of 1) Curriculum, 2) Learning objectives, 3) Teaching plan preparation, 4) Teaching and learning activities, and 5) Assessment. The developed model focused on 4 important aspects which were 1) Ethic, promote 5 virtues for students, which are sufficiency, gratitude, integrity, accountability, and moral ideology by using the model to develop activities to promote morality of students. 2) Activity Development, it was focused on teaching and learning activities, including curriculum, learning objectives, teaching plans, teaching and learning activities, and assessment. 3) Support, support the development of activities to promote morality of students under cooperation between administrators, teachers, school board members, monks, parents, and communities. 4) Students, students will receive the most from the activity development promote the morality.

Index Terms— Activity Development, Students' Morality, Primary School

I. INTRODUCTION

The world today is the age of information technology with the evolution and potential of information technology. Thus, the knowledge that existed quickly spread. The advantage of each country depends on the ability to take advantage of that knowledge developing people to have high potential and quality to seek and make use of knowledge is therefore the role and function of development. Development management to develop people to have quality is essential. It must be a quality development in order to fully develop the potential that exists in people. People who know to think critically known to solve problems be creative Learn to learn by yourself, able to adapt to keep pace with the rapid changes, having ethics, morality, self-reliance and able to live happily in society according to the provisions of the Kingdom of Thailand. (Office of the Basic Education Commission, 2010: 2) [1].

Morality and ethics are valuable things that Thai ancestors have preserved along with the Thai nation since ancient times. Nowadays, in the age of globalization morality and good ethics of Thai people are about to be ignored and cause many social problems especially students and youth, who are the future of the nation, receive a foreign culture that flows into the boom in science and technology. The lack of consideration and the lack of being a good role model for people in the consumerist era

made it worrisome. If there is no action to stop these problems, it will have a profound impact on Thai society. (Commission on Education, Religion, Art and Culture, 2007: 10) [2], in the management of learning in educational institutions that emphasize the morality of learners. Ethics in accordance with the provisions of the Constitution of the Kingdom of Thailand 2007, it is considered that the school administrators are the leaders in teaching and learning management to develop students' quality to be a person who is keen on learning continuously, able to think, solve problems, love human beings love nature and environment as well as being a broad vision and a neutral mind in teaching and learning for students. Teachers are expected to improve teaching skills and experiences in accordance with learners' abilities, interests, needs and attitudes with a student-centered emphasis emphasis is placed on the learning process to be able to learn to be for continuous learning and to be used in the creation and preparation of human resources to provide the country with suitable quality and consistent with the sustainable economic and social development of the country. In which school administrators have to formulate strategies by changing the learning process for the learners to seek knowledge and learn by themselves more. Administrators have to accelerate the systematic and continuous development of teachers to become persons with appropriate potential to provide

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the development, training and development of the youth of the nation as a human resource that is of importance to the nation.

Therefore, the essential element or tool to help develop children and youth is the moral and ethical principles that create a moral conscience, the inner quality is admiration, praise while the act of evil surely brings pain virtuousness. It is an international matching criterion such as not killing animals. They do not persecute, steal, do not misconduct in sexual relations. It is the condition of doing good deeds, which is the suitability to the events that occur, and able to make decisions and solve problems appropriately according to the principles of morality and ethics that can be classified, able to teach, train to follow the standards of correct behavior, with a consciousness. Responsible for good and sanctioned having a good mind, character, and intentions or intentions (Phraphrombandit (Prayoon Dhammajitto), 2013: 25-26) [3].

The nature of that virtue, the delicate things in the minds of each person cannot be measured or controlled by law or any regulations, but can control their own consciousness. Those who have a moral conscience can forbid their own wrong thoughts and can deter actions that are not worthy and able to control oneself to behave only in good things that being a truly good person, because a virtuous person has to have the following main elements: 1) being real, 2) knowing, controlling, 3) self-tolerant and patient, 4) knowing, loving, generous, 5) having compassion pity wants others to be free from suffering, 6) to appreciate when others are good, and 7) to be indifferent. Virtue is something that promotes and develops students to be a complete human being, both in body and character of that virtue. It is a delicate thing in each person's mind. It cannot be measured or controlled by any law or regulation, but can control their own consciousness. Those who have a conscience able to forbid their own wrong thoughts and can deter unreasonable actions and able to control oneself to behave only in good deeds, therefore will be regarded as a good person indeed, because the virtuous person must have the following main elements: 1) being real, 2) knowing, controlling, 3) tolerant and patient, 4) knowing, loving, generous, 5) having compassion, others are free from suffering, 6) appreciate when others are good, and 7) know how to ignore such virtues. It is something that fosters and develops students to be a complete human being, both physical and human. Valuable to society in the future students must be trained and training both physically and mentally as Phutthaphot that those who have trained themselves well considered to be a complete human being (Phra Maha Chakrit Rachasri, 2008: 226) [4].

The school, as a development institution expected by society, has a role to play in nurturing students to be qualified people to belong to society create a sense of responsibility and have a reasonable understanding of the principles of truth. Therefore, the school must have the aim of transferring knowledge, develop intelligence to learners along with moral and ethical development, and culture of living able to live happily with others which is in line with the government that has organized a

moral school project OBEC in order to inherit the science of the king At His Majesty King Bhumibol Adulyadej His Majesty's royal orders "Help build good people for the country" and bestow three principles on teachers and students that "Let teachers love children and children love teachers, have teachers teach children to be kind to their peers not to compete, but to compete against themselves and to have children who are good at learning to help teach their peers at a later time, have the teacher organize activities for students to challenge together in order to see the value of unity "in order to lead the royal order come to practice concrete. It aims to instill in the administrators, teachers, students and educational personnel to be cultivated in 5 virtues: 1) sufficiency, 2) gratitude, 3) honesty, 4) responsibility, and 5) moral ideology (Office of the Basic Education Commission, 2017: a) [5].

OBEC moral school project is an operation to carry on the royal wishes, following in the footsteps of His Majesty King Bhumibol Adulyadej. According to the wishes of His Majesty King Rama 10, the Minister of Education has assigned the Deputy Minister of Education implement policies under the National Strategic Framework on Morality in collaboration with the Office of the Basic Education Commission as the person responsible for providing education for the majority of the country's youth to be quality citizens. It is also responsible for the provision of education for all youths to have knowledge, ability, be good, smart and happy according to the policy of the Ministry of Education.

Establish a "Moral School Project OBEC" to develop schools at the basic education level, make students, teachers, administrators and educational personnel to realize, understand and have a rational thinking process to absorb the value of virtue naturally, and create a sense of conscience as well as create a network of moral organizations community by coordinating cooperation from agencies and organizations that work on morality clearly that model of moral school. It's simple and easy to do. It is a low investment but very profitable, and can actually change the behavior of students. The moral school principals can be applied to schools of all religions, does not have a monopoly on any religion like a universal virtue. This will help "decrease" unwanted behavior in school and promote "more" desirable behavior, which is a sustainable development of youth, parents and communities.

Therefore, the researcher is interested in studying the patterns of development of a model of activity development to promote students' morality in primary schools under the Office of Primary Education Service Areas which is a school that operates teaching at the elementary level from school development management by combining the development of model and the development of virtue principles to enhance knowledge and competence moral to such students as the researcher has the opportunity to look at teaching students. Therefore, wishes to study the status of moral promotion that

elementary school students are likely to develop student behavior as a moral partner and how to develop such moral to be a permanent virtue for students in order to build up the youth virtue which will bring happiness and prosperity to Thai society in the future.

II. RESEARCH OBJECTIVES

The purpose of this research was to propose a model of activity development to promote students' morality in primary schools under the Office of Primary Education Service Areas.

III. RESEARCH METHOD

Mixed methods research was used for the research design. The target group were 17 key informants and 24 school administrators whereas 400 school teachers were used for data collection. Content analysis was used for qualitative analysis, and quantitative data were analyzed by using descriptive statistics consisted of percentage statistics, frequency, mean, and standard deviation.

IV. RESEARCH FINDINGS

Results of the study of the development condition of student's moral promotion activities of students in schools under the Primary Educational Service Area Office. The level of opinions on the development of moral promotion activities of students, and 50 items for schools under the Primary Education Service Area Office consisted of 1) sufficiency, 2) appreciation, 3) honesty, 4) responsibility, 5) moral ideology found that teachers' opinions towards development of moral promotion activities for students. For schools under the Primary Educational Service Area Office, the overall level was at the high level while each aspect was at the high level in all aspects. Results of the study, development model, moral promotion activities of students for schools under the Primary Educational Service Area Office.

Development model for moral promotion activities of students for schools under the Primary Educational Service Area Office, it is the development of teaching and learning activities that teachers or teachers teach at the elementary school level, consisting of 1) curriculum education, 2) determination of learning objectives, 3) the lesson plan preparation, 4) the teaching and learning activities, 5) the evaluation and evaluation of the development of moral promotion activities. It is to promote the organization of teaching and learning activities, inserting morality and ethics of students, and organizing activities to promote goodness for students. The results of presentation of the development model for moral promotion activities of students for schools under the Primary Educational Service Area Office Development model for moral promotion activities of students to achieve results. There will be 3 main focus areas:

1) the number of students who have been developed to have more desirable behaviors in school, 2) More participation from the beginning is the study of the curriculum, the purpose of setting Learning, teaching plan, teaching and teaching activities and measuring and evaluating learning results, 3) the school instills five virtues: sufficiency, gratitude, honesty, responsibility, moral ideology, using the development model for moral promotion activities of students.

V. DISCUSSIONS

Development of moral promotion activities for students 50 items for schools under the Primary Education Service Area Office consisted of 1) sufficiency, 2) appreciation, 3) honesty, 4) responsibility, 5) moral ideology found that teachers' opinions towards development of moral promotion activities for students for schools under the Primary Educational Service Area Office, overall, it was at a high level which is in line with the research of Ka Chanyiwa (2017) [6] has researched on "A model for promoting morality in students in basic educational establishments under the office Narathiwat Primary Educational Service Area 1 "The research results showed that current conditions in development promote morality to students in basic educational institutions under the office. The overall level of primary education in Narathiwat Province was at the high level. Basic educational institutions affiliated with the office Narathiwat Primary Educational Service Area 1 consists of 5 elements: 1) Behavior is a good role model for teachers of virtue, virtue; 2) moral development through the teachings of Islam and Buddhism together. It focuses on the students' kindness, kindness, patience and forgiveness; 3) Using the curriculum to develop students to adhere to and act according to virtue and virtue for a peaceful coexistence; 4) Organizing activities related to traditions or religious ceremonies in order to deter unwholesome thoughts and actions, and it is the practice of being a giver, such as forgiveness and known to share knowledge, goodness and the fifth component; 5) measuring and evaluating results covering knowledge, skills and attitudes. of learners, parents and other stakeholders, and to use the assessment results in the development of teaching and learning for assessing the feasibility of implementing the promoting morality to students in basic educational institutions under the office Narathiwat Primary Educational Service Area 1 was used. In the basic educational institutions under the office Narathiwat Primary Educational Service Area 1 overall at the most level and also related to Nonglak Jaisalad's research (2010), [7], that studied the moral enhancement model of Thai higher education institution students. It was found that the moral enhancement elements of students of Thai higher education institutions consisted of 8 elements, be a good example of a moral and moral teacher, organizing a participatory teaching and learning process insertion in teaching and learning of all courses. A general education course designation in the curriculum Organizing extra-curricular activities creating a good

environment in higher education institutions, promoting arts and culture and adhering to democracy, and organizing creative and integrative activities as for the creation of a moral building model moral values of students of Thai higher education institutions 1) the role of the teacher has 3 components: being a good model of morality, morality of the teacher, organizing a participatory teaching and learning process; 2) the role of the administrators of higher education institutions consisted of 5 components, namely the formulation of educational courses. General in the course creating a good environment in higher education institutions, organizing extra curricular activities, promoting arts and culture and adhering to democracy promoting the organization of creative integrative activities for the evaluation of the moral reinforcement model of students. Thai higher education institutions, which the administrators of higher education institutions holding administrative positions in the faculty have an opinion consistent that the model is suitable. There is a high level of possibilities and benefits. From the study of related documents, it can be concluded that the moral development can be carried out by various methods, namely teaching according to the curriculum. There should be a course that teaches about morality directly by giving knowledge understanding of the subject content a lesson plan is organized suitable teaching curriculum. In addition, all courses should be taught in conjunction with moral content that can integration with daily use. 2) Activities, course-based activities, co-curricular activities, suggested activities such as religious activities, meditation, and meditation attending the moral training camp and practicing moral reasoning, community service activities. 3) Being a good model for teachers, parents, administrators. 4) Using group processes influence of the group. 5) Role-playing 6) Environment that is conducive to moral development. It can be seen that moral development requires several methods how to create the realization of moral values that leads to a desirable attitude that will result in behave in the correct manner.

Development model for moral promotion activities of students for schools under the Primary Educational Service Area Office. It is the development of teaching and learning activities that teachers or teachers teach at the elementary school level, consisting of 1) curriculum education, 2) determination of learning objectives, 3) the lesson plan preparation, 4) the teaching and learning activities, 5) the evaluation and evaluation of the development of moral promotion activities. It is to promote the organization of teaching and learning activities, inserting morality and ethics of students, and organizing activities to promote goodness for students to have morality which the research results are consistent with "OBEC moral school project" as follows by adhering to five principles: sufficiency, gratitude, honesty responsibility moral ideology This is in line with the research of Pornnipa Channoi (2017) [8], on "The moral behavior development activity model of students in private higher education institutions according to the characteristics

of Thai ideal graduates", the research found that factors affecting the moral instillation of students of private higher education institutions in Chiang Mai Province. The external factors mean higher than the internal ones. It is considered to be of the first importance to promote and cultivate. External factors include in education environment, the process of cultivating morality the students' family status and social environment, respectively, the moral behavior of students of private higher education institutions in Chiang Mai Province. Overall is high When considering the following aspects: Discipline, when the meal is finished, students will place their plates on the table at the university, be prepared and attend classes as scheduled. On accountability, students focus on public work before personal matters, completing assignments on time. Sacrifice Students will help friends who are struggling with their strength student abilities honesty.

Students attend classes every time, although sometimes teachers do not check their names. In terms of having a student culture, dress and have beautiful Thai manners have gratitude to their benefactors participate in activities related to Thai traditions, arts and culture and having professional ethics students perform their duties with responsibility, honesty, follow the rules organizational rules and models, activity models, moral behavior development of students of private higher education institutions in Chiang Mai Province. It is called "CAPPAE MODEL" with Principles, objectives, content, knowledge and practice, social system, support for learning is classified into instructional management is divided into 6 steps: 1) raising awareness (A), 2) providing knowledge and practice (P), 3) creating conceptualization (C), 4) developing desirable characteristics Purpose (P), 5) Evaluate progress (A), 6) Evaluate (E) Moral promotion activities divided into, 1) Morality related to living in society consists of honesty, Sacrifices and discipline, 2) Occupation according to code of conduct. The virtues that students must have are honesty, behaving according to professional ethics, emphasizing the results of using the moral behavior development activity model of students of private higher education institutions in Chiang Mai Province from observing behavior project evaluation. The self-reporting and assessments of the students' self-control showed that the students who were taught in order to develop a holistic moral behavior in three areas: behavior, mind and intelligence; and change for the better for both moral reasoning Attitudes towards moral behavior the format of moral promotion activities is very appropriate especially in the area of professional ethics responsibility and the sacrifice, respectively.

This may be because organizing activities is the policy of the university with the goal of developing all students to be complete including physical, mental, intellectual, knowledge, virtue, virtue and culture of living can live happily with other people. The learning activities that promote the development of

moral behavior of the students were satisfied at a high level, especially the teaching management model that promotes moral development, be responsible for yourself and the public encourage students to be creative, thinking of solving problems in helping society more courage to express yourself, research results of moral reasoning of the students. Most of the students have the sixth stage of moral reasoning. Students have an average level of moral reasoning in the fifth stage, which is consistent with Kolberg's theory of moral development that people over 16 years of age have a higher level of moral development, the fifth and the third. This is the stage in which conflicts are settled. It is also consistent with Pranee Tantayanuputr (2008) [9], study of cognitive and logical reasoning. Moral values of the undergraduate students found that the moral cognitive mean of students in public and private universities. Most of them agree that the areas of responsibility, honesty, discipline, patience, justice, perseverance, and respect for the elders are at the level of gratitude and sacrifice. In level, should do especially for the SAVINGS AND SAVINGS Public university students agree that they should. The private sector thinks that this should be done especially when testing the mean hypothesis with t- statistic at the .05 significance level, it was found that the mean of moral knowledge and understanding of private university students was higher than that of the state. Analysis section compare the moral reasoning among public and private university students, overall, public university students had a fifth level mean of moral reasoning according to Kolberg's theoretical concept, that is, in principle, rational and considerate. The average level of moral reasoning is in the 4th level, that is, in the principle of fulfilling duties and order of society. When testing the mean hypothesis obtained with t- statistic at the .05 significance level, it was found that the moral reasoning mean had no difference in value at a similar level. It is in the principal stage, acts according to the duties and order of society, has reasons and takes into account the common interests. For comparative analysis of the moral reasoning of students in business and non-business disciplines Overall, non-business students had an average of moral reasoning is in the fifth stage, that is, in principle, is rational and takes into account the common interests. For the average, the level of moral reasoning of business students is in the fourth stage, that is, in the principal stage of the function and order of society. When testing the mean hypothesis obtained with statistics at the .05 significance level, it was found that the moral reasoning mean had no difference in value. Students in both disciplines had moral reasoning at the same level. It is in the principal stage, acts according to the duties and order of society, has reasons and takes into account the common interests.

Development model for moral promotion activities of students to achieve results. There will be 3 main focus areas: 1) The number of students who have been developed to have more desirable behaviors in school, 2) More participation from the beginning is (1) the study of the curriculum, (2) the purpose of setting learning, (3) teaching plan, (4) teaching,

(5) teaching activities, and 6) measuring and evaluating learning results 3) The school instills five virtues: sufficiency, gratitude, honesty, responsibility, and moral ideology. Using the development model for moral promotion activities of students which is related to the research of Prayoon Srikwanprachcha (2559) [10] has conducted research on "Development of a Moral Discipline-Enhancing Activity Model for Primary School Students", the experimental group students had morality of discipline significantly higher than the control group at the .01 level, have virtue of discipline in the experimental and follow-up periods were higher than the control group for experimental students. Moral of discipline higher after participating in activities than before participating in activities with statistical significance at .01 level and experimental group students. There is no difference in moral knowledge on discipline. From the test after the completion of the activities according to the pattern and passed 2 weeks and is consistent with the research of Praphairat Lamjai (2014) [11], on "Moral development model morality of secondary school students ", the research found the results of the study of basic information and guidelines for moral development of secondary school students found that the moral development of secondary school students developed 3 aspects, namely discipline, honesty and public mind. The moral development model for secondary school students consisted of 1) problem condition and necessity, 2) Model rationale, 3) Basic concept, 4) Objectives, 5) Model structure, 6) Development activities, 7) Media and learning resources, 8) Measurement and evaluation. For the results of the moral development model of the experiment, the secondary school students found that the students had a higher moral and moral behavior after the model than before the model was statistically significant at .05 level, and the evaluation of the moral development model of secondary school students. There was a high level of overall satisfaction.

VI. RECOMMENDATIONS
A. Recommendations for practice

Research results on a model of activity development to promote students' morality in primary schools under the Office of Primary Education Service Areas, the results of the study were suggested as follows:

1. Sufficiency schools should train students in implementing royal ideas of sufficiency economy applied in teaching and learning and promoting the establishment of savings cooperatives within educational institutions to promote the savings of students.

2. Gratitude schools should regularly promote moral-building activities related to gratitude to their benefactors and should be organized into a moral camp with an emphasis on gratitude.

3. Integrity schools should promote honest conduct integrity is the key and should promote students' virtue,

conduct with integrity, such as giving a diploma or scholarships.

4. Responsibility schools should always have adequate control over the compliance with the rules and regulations with campaigns to maintain order and discipline within the school and should provide opportunities to participate in expressing opinions about the school's discipline and discipline to make it more appropriate for students by adhering to democracy.

5. Ideology and morality schools should encourage students to know how to help those who are in constant distress, such as donating things to the needy, etc., and promote generosity and self-sacrifice for the common good, such as volunteering in public benefit projects.

B. Recommendations for further research

If further research is to be done on the development of student moral promotion activities, the researcher recommends conducting research in the following way.

1. Should study from schools that organize moral promotion activities that the same or different virtues were used from this research.

2. Should study the implementation of Buddhist principles used in conjunction with activities promoting morality in schools.

3. Should be studied in a research that narrows the scope of the research area, and should be defined as a specific area of study.

4. The research results obtained should be applied to schools or the next unit in order to consider the achievement in organizing activities for further moral promotion.

CONCLUSION

Development of a model of activity development to promote students' morality in primary schools under the Office of Primary Education Service Areas, all 5 areas consisted of 1) sufficiency, 2) appreciation, 3) honesty, 4) responsibility, and 5) ideology and morality as a whole at a high level, and at high level in all aspects, as for the development of model, development, moral promotion activities of students for schools under the Primary Education Service Area Office, it was found that the development model for moral promotion activities of students. For schools under the Primary Educational Service Area Office, it is the development of teaching and learning activities that teachers or teachers teach at the elementary school level, consisting of 1) curriculum education, 2) determination of learning objectives, 3) the lesson plan preparation, 4) the teaching and learning activities, 5) the evaluation and evaluation. The development of moral promotion activities. It is to promote the organization of teaching and learning activities, inserting morality and ethics of students, and organizing activities to promote goodness for students to have morality which the research results are

consistent with "OBEC moral school project" as follows by adhering to five principles: sufficiency, gratitude, honesty responsibility moral ideology. For the presentation of the development model of student moral promotion activities (EASS Model) to achieve success, there will be 4 main focus points: 1. Ethic, promoting 5 virtues for students: 1) sufficiency, 2) gratitude, 3) honesty, 4) responsibility, 5) moral ideology 2. Activity Development of teaching and learning activities, namely 1) Curriculum study, 2) Determination of learning objectives, 3) Teaching plans, 4) Arranging activities for teaching and learning, and 5) measuring and evaluating learning results. 3. Support to support the development of moral promotion activities of students under the cooperation between the administrators, teachers, school directors, monks, parents and the community. 4. Student Students will benefit the most from the development of moral promotion activities of students. For schools under the Primary Educational Service Area Office considered to be a star in society because he will be those who have "Knowledge and virtue".

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Development of Human Relations for the Happiness in New Normal Era

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Abstract— Human Relations for happiness in New Normal era will lead to a smooth relationship and have a good understanding of each other. It creates satisfaction, pleasure, strengthening, solidarity in work. Human relations build trust and love. Reconcile each other contributes to the success of businesses with a common purpose in order to be effective in the administration of educational institutes as much as possible that must consist of Buddhist principles, namely the four principle of service (Sangahavatthu IV) which can benefit the person to live in society with happiness as an anchor for kindness and friendship between each other. It is a tool to promote interpersonal relationships to have respect for each other as appropriate as a tool to coordinate various organizations of society in every sector to remain and operate well. It is also promoted morality and to prevent the detrimental conduct of the people in society in accordance with the 4 principles of human relations that consisted of Sending, Speaking, Servicing and Supporting. Therefore, human relations for happiness integrating between Buddhist principle and the 4 principles of human relations are very importance for encouraging people in the society in New Normal era.

Index Terms— *Human Relations, Happiness, New Normal Era*

I. INTRODUCTION

When the crisis began to pass to the point where lockdown was loosened, our society had fully entered the New Normal era which results in a significant change in our daily life partly because this crisis has given life to vaccines. It is to make us more conscious and thoughtful, have easier empathy and compassion, and be ready for the change faster especially when humans must interact with each other. They have to live together including friends, school friends, playmates, colleague's family members in the community, society, and nation organization. There is a need to use human relations as a bridge for good relations with each other, processes in human relations expressed in the form of motivation, or create satisfaction according to the principle of human relations.

It is important to every step of administration political organization, government agencies, business work, companies or industrial affairs as well as various associations will progress and proceeded to achieve the objectives partly depends on the talent of the management or supervisor in research planning or management. As the result, human relations are a tool to create generosity and works. How smoothly the work can be performed depends on the integration of human relations with Buddhism well and correctly. This is because good interpersonal relations will help promote work with the group, and to have unity. If the group loses good human relations, both vertically and horizontally on the chain of command. There will only be quarrels and confusion causing the group or organization to work to achieve results well, and there is no happiness in which to join in building faith in the work to happen.

II. THE CONCEPT OF HUMAN RELATIONS

Building better human relations by trying to compile various rules related to the subject matter and the relationship between humans and humans together. It is like a bond that connects society to be united, cooperation, coordination, eliminating conflicts, and help resolve conflicts in the work, especially the executives need to be involved with people such as supervisors. Colleague

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subordinate and people in general. There is a great need for interpersonal relationships to motivate and motivate people in the organization to work. This will be a way to win the hearts of people, to be popular, to be able to successfully solve problems because most problems are with the person [1].

In this regard, human relations are the creation of friends, making the association within the department go smoothly. It is a personal business of a person who wants to build up human relations and must act on a regular basis. For this reason, administrators need to seriously study the behavior of individuals in the organization which makes it clear to understand a person's condition because these are the guidelines for the development of assignments that are suitable for personal characteristics, knowledge and abilities which will not cause management problems [2].

In addition, human relation is being used in daily life, private, in the family, among friends. Therefore, it can be counted as an informal relationship can also be adjusted to a formal relationship used in various organizations widely in every organization such as private business organizations or government organization. There are other organizations where people work together for the success of the organization executives recognize that human relations are the primary factor affecting the success of the work for which they are responsible [3].

Executives with good interpersonal relationships will create recognition, respect, dignity, value and well-being of people involved in the organization or department. Executives with good interpersonal relationships will be people who speak well and be encouraged by everyone. Congratulate when someone is good, and have confidence in the good of others, empathize, try to create the best picture of working in school. Most livable and the happiest of all gives everyone a sense of belonging together eliminate conflicts and the tension in the organization or agency has always be generous, open-minded, and a sense of self-control, and not to be sensitive to events [4].

III. COMPOSITION OF HUMAN RELATIONS

To be able to have a relationship must understand human needs and nature. This will ensure smooth communication. We also need to think about and take into account some of the elements of the people or groups that are used to build our relationship with the classification of elements in building human relations as follows: [5]

1. Perception, perception is an interpretation or understand things as they have experienced. Perception has a strong influence on building human relations. Individuals have to learn that each person's perception is different. How

are they the same? Perception of persons related to human relations has two characteristics as follows:

1.1 Self-awareness, how is self-understanding? Some people will perceive themselves as good people, talented people or bad because he has always been admired by family members and those around him. This type of person feels self-esteem, have self-confidence, stable mind and optimism. Emotions and feelings expressed towards others are positive, in contrast to those who perceive themselves as bad, unwise because they have been blamed or condemnation from someone in the family and people around all the time to understand that they really are. These people tend to have inferences, lack of self-confidence and looking at others pessimistically, their behavior and emotions are negative. It can be said that self-perception is different and surely makes people express themselves differently.

1.2 Perception of others to perceive others as a person may have been told by friends or may have been interacted before.

2. Belief has a strong influence on behavior because belief is the main determining behavior, it can be derived from belief in religious creed.

3. Attitude is another important composition in building human relations because attitudes are about feelings of dislike and dislike resulting from thoughts and beliefs. If we want other people to have good interpersonal relationships, we need to build faith in others. If others believe that we are good, he will feel like and showing a positive response to us. If the supervisor wants his subordinates to love and cooperate in the work, he had to create faith to happen to subordinates. If the person believes that the supervisor is good fair, he will enjoy and cooperate in working, building human relations in relation to that attitude. Supervisors may do it in two ways as below:

3.1 Create positive attitudes which is often the beginning when each person gets to know each other, starting to join the event for the first time.

3.2 Change of attitude, a change in attitudes takes place when people have been in contact for a period of time, and bad attitudes will develop. This may be due to doubt and showing bad behavior towards each other will have to change the attitude of subordinates by informing the facts when supervisors have a positive attitude. Then, good human relations will occur.

4. Values means giving value to things. Whether something is good or bad for example, we value honesty as a good thing. We show honesty or someone would appreciate having material things that are good regardless of the method of obtaining an object. A person collects as many objects as possible, and values are one of the factors that determine human behavior in society. In building human relations, therefore having to consider this matter a

lot. When human beings have different values, it is appropriate to meet their needs according to different values. In addition, Thai people share one of the similar values such as people in Thai society are in a popular empowerment society, and honoring authority. Therefore, Thai people have values according to the nature of Thai society. The values to be aware of in building human relations are as follows:

4.1 Praise the authority, the person will respect the authority, will admire and bring himself closer to the authority. At the same time, he likes others to praise himself, to honor and respect himself, and to value himself.

4.2 Respect the elders Thai people adhere to the issue of aging elders will have no chance to do anything wrong or to never do anything wrong. It can be seen from the words of parents who always say to their children. I am very impatient, so the less senior must obey, the older than the less, must be humble and humble to the elders, both mentally and physically.

4.3 Values of peace, Thais love peace, and Thais do not want to have a conflict of kindness, sometimes it is a disadvantage, some accept such values that cause injustice. Thais must hold back their feelings for the sake of peace.

4.4 Value of consideration, consideration will lead to good human relations because fearfulness reminisces about the emotions and feelings of others, such as being considerate, upset, frustrated, or hurt, people who are considerate will not dare to do improper things. Consideration is one of the most influential elements in building a human relationship.

IV. PRINCIPLES OF HUMAN RELATIONS (4S)

Principles of building human relations demonstrate the individual practice of a friendly group and society to live together happily. You have to take into account as the following items [6].

1. Sending a giving is a sacrifice of material things that appropriate for one's strength in order for others to enjoy the joy of having some material, such as giving alms to the poor, the orphan, the disadvantaged, giving alms besides helping to benefit society. It also helps the sender to reduce the passions in the mind that is greed, stinginess selfishness.

In addition, giving is the basis for us to be able to do better, including smiling that will be a friendly magnet because it will make those who meet when we smile will feel that be friendly with him. Therefore, there should always be a smile on his face without the need to smile to see the teeth, but just smile at the corner of the mouth, will make those who meet it feel that be friendly with him, dare to meet,

dare to approach, because a smile is the gateway to friendship in the hearts of those who have seen it.

2. Speaking is polite speaking with words that are sweet and sweet. Sincere not rude, offensive say things that are helpful in the right time. We often hear that alone, careful thoughts be careful with words. Coexistence words are very important, and if you speak and speak, you will benefit greatly from your speech. A few words of good words can turn a bad person's mind into good with good speaking principles which must adhere to 5 principles which consist of as below:

2.1 Having sweetness, polite speech, sweet voice, no sound and not threatening to shout is true what has been said must be pondered. That it is true, therefore speaking it.

2.2. Useful even if what is said is true but have to consider that the truth when it is said that it is useful, the audience is satisfied, it should not hurt anyone, should have said already, to create alliances with each other.

2.3. Suitable, in speaking, it is necessary to take into account the appropriate tense. You need to know whether this time should speak or not, and how to say suitable for every season. Any place where things should be said, for example, should not talk about funeral entertainment. It must take into account the gender, age, status of the audience.

2.4. Aim knowing why you are speaking for what will help make your speech sound more time-consuming.

2.5 Having art such as using facial expressions, gestures, tone of voice and eyesight including mind, psychology of speaking to abstain from corrupt speech, not lying, not speaking abusive, delusional and sneaky, should be at appropriate intervals of speech. In order to allow the audience to get the correct meaning, for example, the words "This drug is good, eat and be strong." There is no persecution disease "if there is a wrong speech, wrong correct spacing, may cause the meaning to change to a negative side. "This drug is good, eaten, strength, without disease, persecution."

3. Servicing provides sincere help to others. A worthy opportunity providing help with a willingness is a good expression of kindness. It is to build good relationships with others and can win others' hearts too, so this service is considered to be a shock to the people. When others suffer or filming withdrawing the suffering of others to end or spread our hearts to know people and animals suffering called "it is to help those who are suffering from suffering."

4. Supporting, support is to support those who do good or make progress to get better and more, with a strong desire to wish him happiness. It has a kind heart and thinks to benefit humans and animals all over the face with kindness, care, and benefit to all people or the kindness, desire, benefit, happiness that goes toward friends including

sincere admiration and admiration of others appreciation of others that is very important to the heart. That giving must not be jealous look at others in a positive light rejoice when others should be able to rejoice and praise the goodness of others by creating honor for oneself called "it is to support those who are happy to be happier."

V. PRINCIPLES OF BUILDING HUMAN RELATIONS IN BUDDHISM

Principles considered to build good human relations that is the anchor of the spirit of others, to be generous, supportive, or as the principle of mutual support, that is Sangahavatthu IV [7] consists of Dana (giving), Piyavaca (speech is love), Atthacariya (behaves as benefits) and Samanatta (behaving consistently). Details are as follows:

1. Dana (giving generosity), everyone should know, give, and be considerate of each other. Giving is not meant or specific, it is merely giving away one thing but includes the provision of knowledge help and always great giving is "Forgiveness".

2. Piyavaca (kindly speaking), say love each other, speech is love words that are soulful or grateful, that is, speaking of polite, sweet, harmonious tone with a harmonious tone, appreciating the heart, causing friendship, love and respect. Along with the words of benefit, it contains reasons that are evidence that motivates the favor.

3. Atthacariya (useful behaviors), starting from developing their own knowledge and ability to work along with moral development first. They then use their talents to work hard and collaborate with the team and help each other when encountering obstacles.

4. Samanattata (behaving consistently), it has been favorably laid off with others, still do the same and do not change. When there is a higher position, the more you have to put yourself well and to show a lot of kindness and always support your subordinates.

VI. HOLISTIC BUILDING OF HUMAN RELATIONS TO BE HAPPY IN THE NEW NORMAN ERA

Building a happy human relationship in the New Normal era, which can be brought as a holistic as follows:

A. Dana and sending (giving)

It is the sacrifice of objects that are suitable for their own strength, so that others get the pleasure of having some objects that everyone should know and be generous and generous to each other. Giving is not meant or specific, it is merely giving away one thing. This includes sending the giving of knowledge, help and the great giving is always "forgiveness" and good giving without much investment. A smile will be a friendly magnet because it will make those who meet when we smile will feel that be friendly with

him, so there should always be a smile on his face without the need to smile to see the teeth. It is just smile at the corner of the mouth will make those who meet it feel that be friendly with him, dare to meet, dare to approach, because a smile is the gateway to friendship in the hearts of those who have seen it.

B. Piyavaca and speaking (good speaking)

Piyavaca is a lovely verbal, say love each other, speech is love words that are soulful or grateful, that is, speaking of polite, sweet, harmonious tone with a harmonious tone, appreciating the heart, causing friendship and respect throughout the words of benefit. There are reasons that are evidenced by the motive for favoring tolerance because words tend to convey emotions. Therefore, it should be said to show honor, make people in the organization feel that they are important and makes it easier to communicate and coordinate with the words. Speaking means speaking with sweet words, sincere not rude, offensive say things that are helpful in the right time.

C. Atthacariya and servicing (behave helpful, service-minded)

Behavior is beneficial starting from developing their own knowledge and ability to work along with moral development first. They then use their talents to work hard and collaborate with the team and help each other when encountering obstacles, matching the word servicing. Helping those who are in various difficulties, so this service is considered to be a shock to the people. When others suffer or filming withdrawing the suffering of others to end or spread our hearts to know people's suffering called "it is to help those who are suffering to get rid from suffering"

D. Samanattata and supporting (Behaving consistently)

Samanattata is being a positive person with others and still do the same without changing. When there is a higher position, the more you have to put yourself well in order to show a lot of kindness and support minions. It is always in line with the word "supporting" to encourage those who do good or make progress to get better and more, with a strong desire to wish him happiness, has a kind heart and thinks to benefit humans all over the face with kindness, care, and benefit to all people or the kindness, desire, benefit, happiness that goes toward friends.

From the presentation of holistic building of human relations to be happy in the New Normal era, it can be summarized as a diagram as follows.

Fig. 1 Holistic building of human relations to be happy in the New Normal era

CONCLUSION

Building a happy human relationship in the New Normal era would lead to a smooth relationship and have a good understanding of each other. It creates satisfaction, pleasure, strengthening, solidarity in work. Human relations build trust and love reconcile each other, and contributes to the success of businesses with a common purpose in order to be effective in the administration of educational institutes as much as possible that must consist of Buddhist principles of Sangahavatthu IV that can benefit the person to live in society with happiness as an anchor for kindness and friendship between each other. It is a tool to promote interpersonal relationships and to have respect for each other as appropriate as a tool to coordinate various organizations of society in every sector to remain and operate well. It is also to promote morality and to prevent the detrimental conduct of the people in society in accordance with the 4 principles of human relations: Sending, Speaking, Servicing and Supporting.

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Development of Educational Administration Innovation according to Buddhist Principles

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Abstract — This academic article aimed to propose educational administration model according to Buddhist principles derived from the development of educational administration innovation according to Buddhist principles. Documentary study was used and data were analyzed by using content analysis based on the consistency of Buddhist principles related to educational administration consisted of 3 principles which are the principle of self-control, principle of possession of people, and principles of occupation. Results showed that Buddhism is a religion of wisdom and the practice of all doctrines, mention the truth according to the natural law that the students must use wisdom in study and practice at the same time. The Buddhist principles in Buddhism consist of moral and ethical principles, focusing on being up to the truth of the world and the present life. Innovation or a model for educational administration according to the Buddhist principles are applied in management, both in self-administration of the executives, personnel management, and administration in educational institutions. Therefore, educational administration model was developed based on the teachings of the Lord Buddha that was being applied the management and operation for maximum benefit which composed of 2 important principles, namely 1) Four sublime states of mind (Brahma Viharn IV), and 2) Ten virtues of the King (Tasaphithrajadhamma X). These two important principles are applied for educational administration in Thai educational institutes.

Index Terms— Buddhist Principles, Educational Administration, Innovation

I. INTRODUCTION

Royal Institute Dictionary has given the definition of innovation as refers to things that are made new or strange from the original, which may be ideas, methods or equipment, and the definition of the Oxford Advanced Learner's Dictionary has the meaning of the innovation that. Initiating new things, ideas or approaches in making things come up with that idea it shows that innovation is a new concept and practice, especially, learning the Buddhist teachings that the Lord Buddha enlightened the sublime truth, which was considered a new way that the Lord Buddha discovered [1].

Buddhism is considered a religion of education that the Lord Buddha, the prophet, His Highness taught by Dharma and Discipline, emphasizing on Buddhism to get to the core of Buddhist doctrine with moral, meditation, wisdom and educational development process to have knowledge, understanding, can be practiced the Buddhists are important people because they are the successors of Buddhism as a practitioner. In accordance with the Dharma

and Discipline (Dhammavinaya) which is an example of the behavior of the doctrine and is a trainee, morality and ethics, and a leader in the minds of the people which is an important form and function of the monks in relation to their social duties, "Monks, you have to escape for good and the happiness of the crowd to help the people of the world for the benefit, benefit and happiness to the gods and human beings ", this is the first announcement of the policy of disseminating the doctrine to the people which considered out to educate the public with the Buddha as the administrator of the educational organization in the modern era and he has an exemplary leadership character for Buddhist companies in general [2].

The principles are set out in the Education Act causing school administrators to define their roles in many ways in managing their educational institutes to be able to be driven to be a learning organization. It needs to clearly define his own role as an academy leader and it is necessary to define the roles in working with the group of people involved in the school in order to have coordination and cooperation in

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doing internal activities. Co-educational institutions including the determination of roles in managing workloads throughout the system to proceed in a systematic manner and being clear in the implementation of the goals have been defined which will make. As a result, it is very important that school leaders have principles, theories, and principles to be used as an important mechanism in order to lead to driving the development of the school management system. Management of achieving the goals set each executive has his or her own path of management based on their aptitudes and the ability that they have in various paths. They all need to adhere to a guideline in their operations [3]. Educational leaders who succeed in organizing the organization in a competitive era. It is very important to have an essential attribute, vision and has the ability to set strategy as number one vision and strategy. Therefore, it is a factor of leadership that will make it in the administration of the school to be successful [4]. It pointed out that the organization or educational institution will grow and have better conditions from the present that is reliable, interesting and possible such a vision properly selected and treated, it will be the driving force behind the future of educational institutions in which this process the skills talents and resources will be fully utilized to make the vision come true [5] development of innovative educational administration according to Buddhist principles. It is another way that plays an important role in driving effective education administration. Creating fairness and sustainable development using a system based on the Buddha's principles to be applied for management, such as Phra Brahmabundit (Prayoon Thamchitto), has presented 5 methods of Buddhism: planning, organizational management, personnel work, and supervision [6].

Buddhism is the basic principle of life. It is an integral part of the Thai way of life in order to live with right views for the happiness of the people in society. It is therefore a principle that is especially suitable for application in educational administration in both educational institutions such as schools because schools are the main source of fusion. Humanity for all students and if the country's executives, businessmen and politicians having and using virtue and ethics will lead to a prosperous country and happy people. The principles of the Lord Buddha are for the school administrators to choose and use as appropriate in all matters. Regardless of whether it is self-possession, people-domination, and occupation [7], the applied category of ethics is the foundation of morality of education administrators, which are: 1) Moral self-control, 2) Virtue in occupying people, 3) Virtue in occupation is very important to the administration of the educational institution because any administration to be successful must use moral knowledge. In fact, it appears that the education administrators tend to behave with moral behavior that does

not meet social expectations, executives use their power unfairly executives lack justice [8] the importance of conducting themselves according to Buddhist principles in line with administrative principles of self-control. Occupation is an essential competency, necessary of education administrators. This will affect the education administration and the performance of teachers and education personnel in a sustainable and efficient manner.

II. PRINCIPLES OF BUDDHISM AND INNOVATION

The meaning of the word "Buddhadharma" or "Phra Dham" is that the Buddha's dharma has as many as 84,000 dhammakhanda [9] about the natural truth of human beings with suffering and how to end the word suffering "Buddhadhamma" here refers to the doctrine that is believed to be the result of research, it is the wisdom of the Buddha, which has been passed down for at least 2020 years and is known as the world wisdom. It is the wisdom of humanity and a priceless World Heritage Site. [10] Wikipedia [11] states that "Buddhism, or Buddha, refers to the dharma which the Lord Buddha discovered and disseminated or the teachings of the Buddha about the natural truth of suffering and how to end it. The Dhamma of the Lord Buddha, however, began to inherit through the word-of-mouth memorization metho. The later period has been recorded as a letter. The scriptures recorded on Buddhism are called the Tripitaka and are described in the categories of scriptures, Calling names such as commentary, Deeka, Anudeeka, etc.

The Dharma that the Lord Buddha discovered was that the word "discovered" means "Dharma" as something that existed before, did not come together with the Buddha, but it is nature that happened before the Buddha's enlightenment. It may be said that learning the dharma is perceiving the ordinary world. Learn what is common, how it came and how it went. Because the doctrine of the Lord Buddha, which has been taught more than two thousand years ago, is "truth" because "people can pass on suffering because of persistence in doing good to know exactly".

The main principles of Buddhism, Buddhism has the principle that [12] whether the Buddha happened or not. Truth is neutral in itself. The Lord Buddha enlightened, that was, discovered the truth and revealed it. The essence of this truth is (conformity) the nature of the cause or the procedure of cause factors. He sees things as it is, not as he wants or does not want it to be. To understand this neutral truth when understanding this neutral fair would naturally see the truth wide cover all general having an open view, truly liberating by releasing both the mind. The mind is freed from the dominant force known as passion and suffering become a clear, joyful mind, and the wisdom is liberating from the ordinary knowledge and seeing the pure truth. It is pure, without defilement or prejudice, and is

fully aware of the truth do not have to know through anyone or know as anyone's telling anymore.

III. BUDDHIST LEARNING INNOVATION

When studying the concept of innovation, it will be found that thinking and actions on new or old things have been developed for everyone to accept and practice effectively. The author thinks that this is innovation, which is consistent with Kiratiyos Yingyong's idea, meaning that innovation is a process of creativity, innovation, and practicality and has been distributed to the community as a new item that has never been seen before or old things that exist [13] related to the idea of Gidanun Malithong, innovation is a new concept, practice or invention. That have not been used before or it is the development of the existing product to be more modern and useful [14] and the National Innovation Agency has defined innovation as something new that arises from the use of knowledge and creativity, benefit to the economy and society [15] while the name of the foreigner Roger, Everett M. has said that innovation is a concept, a practice, something new that a person can put into practice [16].

From the definition of innovation it is found to be a new practice concept that will bring good results more than ever in learning the doctrine of Buddhism or in Buddhist learning. Therefore, let's go back studying Buddhism, the method of learning. It is considered that the Lord Buddha was the discoverer of the greatest new knowledge innovation. He has taught Buddhism in 4 companies, namely monks, nuns, worshipers, and worshipers, for 45 years since his enlightenment as the Buddha, with 84,000 teachings of Dhammakhanda when it was categorized into 45 books of the Tripitaka in Thailand, book Buddhist scriptures in other countries. The number of books will be the same. I would like to say that this is the greatest teaching innovation in the world. Going for things that are difficult to understand or do not yet know a clear example is the Noble Truth, who began to teach him how to learn suffering, trouble to learn about life problems that people can see and experience normally. Everyone has seen each other and when there is a problem, learn it by oneself by taking that problem or suffering as a lesson [17].

From the above idea it was pointed out that the Lord Buddha taught me how to learn to solve problems, not creating more problems until dare to become more suffering how to learn from simple things in daily life to difficult things in order. It is a new type of teaching to make it easier for learners to understand. This is a teaching innovation that the teacher can apply to teach students and disseminate the teachings of Buddhism as well, especially the teaching principle that teach as necessary as the students, not teaching as much as he knows or teach showing the pride that the teacher is very knowledgeable,

this word is a very good teaching teacher because some teachers like to teach they show their pride. The disciple did not catch up in the end, not learning. His teaching seems useless because they did not achieve teaching results. However, the Buddhadhamma, the best teaching in which the audience said the same word to teach for seeing for oneself as if to take a hand to see with their eyes.

IV. EDUCATIONAL ADMINISTRATION MODEL ACCORDING TO BUDDHIST PRINCIPLES

The main principle of Buddhism is to try and refine the mind by increasing the wisdom and power of knowledge to be able to manage oneself sufficiently to get involved in the management of other people from one person to many people until the management of various organizations that, if viewed in the light of the truth, all management must start with the management of them first. The administration of the organization as well as the nation, working, coordination, cooperation in the act of preventing, treating, maintaining the organization of people studying training yourself well enough. Educational administration is therefore the result of a large number of people trained in various fields until the knowledge, thought, ability, morality, suitable to work in that position. Executives who can manage the work successfully must have three characteristics: [19] 1) Cakkhuma,the eyesight has wisdom, must have expertise in thinking. 2) Vithuro, he has good business management, must have technical expertise 3) Nissayasampanno, having dependence on other people, having to be skilled in human relations, can be seen that Buddhist principles plays an important role in fostering leadership because it is a principle for governing self and others, can be applied to all types of management. It is also a principle for bringing happiness in life in the Buddhist ethical approach as well.

Principles used in the administration of that education in Buddhism, there are many doctrines of education. These doctrines, if they have been studied, analyzed, explained, interpreted, prepared for academic principles and integration into the times. It can be used as a tool for the management of education and human development effectively. There are 2 important principles that leaders should apply in administration, namely Brahma Viharn 4 and ten, ten Rajajdhamma, each of which is detailed as follows.

Brahmaviharadhamma IV, principles for educational administrators: Brahmaviharadhamma IV is fair for executives the administrators to rule the people must rely on the so-called dharma. The dharma of the adult is that there is love, compassion, generosity, and neutralization, that is, the exercise of authority or grace. Management control [20] is a principle that all executives should have,

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because to be a ruler or an administrator, there must be four virtues called Brahmavihara.

1. Kindness is a good hope that wishes others to be happy. Education administrators must have love and goodwill for their colleagues. Love can only be achieved, if management is optimistic or a good part of your colleagues. If there is any loss in him, management must overlook and forgive when you find a good part, keep it in mind so that you can use people to suit their good qualities.

2. Kindness is a methodology of education administrators who have a supportive mind towards their co-workers. Organization personnel executives help co-workers and subordinates when it comes to helping them solve problems, not neglecting them, creating incentives for co-workers importantly encourages and promotes good working principles because the executives are supporting behind the scenes.

3. Promptness is rejoicing. It is essentially a methodology of education administrators. When an associate subordinates are successful in their professional duties or succeed in life management's duty is to congratulate. It promotes and encourages the opportunity to develop more and more knowledge and abilities, creating a good incentive for the executives to create inspiration, pulling out the capabilities of the personnel to the fullest.

4. Expectation is the principle of every management has to be neutral, not inclined to take sides, either side must be neutral, then use wisdom to consider a reasonable cause in the event of a collective conflict that arises or personnel in the organization to judge objectively management must ensure that all workers are respectful.

The author would like to give an example of an innovative application of Brahmaviharadharma that can be applied and highly valuable to the education system in Thai society. This can be seen from the fact that the teachers in Thai society, when having Brahmavihara is a virtue in the heart to be a teacher of quality and efficiency [21] while teaching is taught with compassion, that is, goodwill. For students to learn happily but while teaching, if a student is suffering, teachers have a compassionate heart, for example, when students do not understand the content taught. Please explain or even if students or learners have other problems. Listen to advice and help find solutions to problems when students achieve various achievements and sympathetic joy (Mudita) was delighted with a heart that consisted of joy but while leaving the exam. It has a mind that consists of biodiversity, that is, adherence to a neutral state without prejudice to all students. For the learners in Thai society, there is also Brahmavihara, which is a virtue for their teachers as well, that is, in normal times they are kind-hearted, meaning they have good wishes for the teachers, making the teaching and learning atmosphere filled with happiness, but when a teacher is suffering, he

has a compassionate heart toward him as can be seen from helping various tasks of the students to the teachers in Thai society, for example, when they saw the teachers holding teaching materials, they went to help or helping with activities of students to educational institutions when teachers are successful. The students also have a heart and are willing to be sympathetic joy. This can be seen from the students in Thai society helping to celebrate different positions. For teachers, or even to organize a retirement celebration for teachers. To congratulate teachers that they will have more time to rest. For situations where the students are unable to use compassion for the teachers, the learners have hearts that consists of bidding towards teachers, such as teachers who violate the rules of the educational institution or offenses under various laws. The students were neutral and let the responsible and knowledgeable. The ability to help each other consider from the information presented above showed that Brahmaavihara is a principle that is highly valued for educational administration in Thai society, that is, it allows the students and teachers in Thai society to perform their duties smoothly, happily and have good relationships with each other causing the transfer of knowledge, efficiency and effectiveness.

V. TASAPHITHRAJADHAMMA X IN EDUCATIONAL ADMINISTRATION

Ten Tasaphitrajadhamma is a good practice and practice for the king to rule over the kingdom. They are principles of all levels of management that should be used to operate their work to achieve, the achievement of the goals for the benefit of the people together which the King in the past has practiced as a royal behavior even a person who is not the Lord of the Kingdom should follow in the footsteps by applying these ten principles in the administration of governments in order to achieve fairness and happiness in society, according to the ideology of government, even higher, which is the qualifications of the education administrator or the ruler, the great in the land, since the king. [23] Executives can also use ten principles to motivate the work of personnel at all levels to complete the operation fulfilling the specified objectives and achieving the 10 principles [24].

1. Review is the giving of the management of property, objects, or elements to acquire objects which means their money, time, and physical strength and others who need (alms) to educate helpful guidance in work (Withana) and life (Dharma) and forgiveness for those who have made mistakes that are ready to be modified or non-condemnation in all matters (pardon).

2. Moral is the way of living in good morality, both physical, verbal and spiritual, which is the universal

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principle of protection of human rights including behavior according to the discipline of the agency according to professional ethics and customs good traditions of society.

3. Paricaga is a sacrifice for the executive, management's approach to working in the field of sacrifice for the public for the benefit of people and the organization will be able to make the personnel work happily.

4. Ajjava is honesty for executives, management method of operation in terms of honesty to the organization to personnel, to be the person who is responsible for the workload success.

5. Maddava is gentleness in the management, the manner, courteous manners, respectful treatment of others, gentle, and polite speech with people of all levels.

6. Tapa is the endeavor for the executive. It is a management method of operating the effort. Persistence progress does not reverse, non-stop, and restraint, not obsessed with happiness, and pampering commitment to complete work duties.

7. Akkotha is anger for executives. It is the management's method of showing rationality, not angry with the coworkers, subordinates without reason, having compassion, knowing to suppress the resentment of the mind, and having a rational diagnosis.

8. Ahimsa is non-persecution for the executive, management methods, not showing persecution, subordinate by using superior power to harass others help creating equality in the organization.

9. Khanti (Tolerance) is patience, management is enduring hardships, not giving up on obstacles to life, having patience in their work, having a tolerance to various provocative emotions that hit is to control emotions when disappointed or tolerating greed and craving.

10. Avirathana is justice for education administrators, a management approach that adheres to the principles of justice, accuracy, not biased or shaken. There is no wrong bias, using knowledge, and ability to perform duties based on correctness can make personnel in the organization to have confidence not shaken by the workload.

The author would like to give an example of the innovative application of the Ten Commandments of King Rama IX to the administration of the country [25] to be concrete. As he has declared the Royal Command is a royal helpless assumption that 'We will rule the land fairly for the happiness of the Siamese public, and as the speech of His Majesty the late King Mahidoladulyadej, the royal family that "Please take your second personal advantage, the benefit of human beings is the number one activity", and he has always brought the 10 Tasaphitrajadhamma to practice in the daily way of life as well. People, monks and poor people, etc., both the alms of Rajadhamma are 1) the giving of things and giving advice. 2) The precepts that he has precepts or consecrates to keep the body and speech

clean without punishment abusively. He has a great faith in Buddhism and has entered the Buddhist priesthood to study and follow the principles. His Majesty always dedicates his royal charity to the Thai people. 3) Donatimg (Paricaka), he has bestowed things to benefit both the Thai people, the royal family, according to the status of the government celebrating. His Majesty the King, as well as giving to the people who the poor also lived their own lives. By sacrificing his personal comfort for the benefit of the Siamese public. 4) Honesty (Ajjava), His Majesty also practices the ten virtues of the Ajjavadhamma because he is honest with him and teaches others to be honest as well. As a royal speech about rural development in 1969 that "rural development is an important task. It's a difficult job, one that needs to be accomplished with talent. Intelligence is to be smart must be done with sincerity, not aiming to make a living by any means who wants to make a living, ask to resign from the position to trade better. Because if you've made a mistake already. The country will collapse and when our country has collapsed, we cannot live. It is equal to the total waste of everything". 5) Gentle (Maddava), He is gentle, His Majesty has a gentle manner, not stubborn to hold him. Although there is a warning in some way. For reason, he will consider carefully. If it is correct and like it, he is grateful and follow, He respectfully respects you who grow by age and without disrespect. 6) The penance (Tapa), he has perseverance (Hongsajataka Kusolawat) by taking his royal heart in the rule of the territory and people to be happy without danger. Throughout his highness practicing Therefore he was pleased with the simple life according to the sufficiency economy philosophy. He bestowed upon the Thai people. 7) Akkotha is not anger, he is not angry, having a verb that is not subject to anger, not a reason to be angry. Despite the cause of wrath but suppressed him so that his heart was still calm, he was always merciful. He does not desire to cause harm to any person. 8) Ahimsa, not persecution (vihimsa). He does not persecute with His Majesty the King, endowed with his mercy. He did not want to cause suffering to anyone, even animals, did not persecute the royal family, I gave his footsteps, and citizens to be difficult because it should not act. 9) Patience (Tapa), he has patience. His Majesty has a royal heart to maintain tolerance, having patience for things that should be endured, such as enduring suffering that arise in the body and has mercy, refrain from blaming the careless person, committing crimes, and should be penalized. But he withholds it with patience, 10) Unethical (Avirothana), he is upright. He maintains justice not to be deviated from the direct and remained inaction with all powers or in other words, not misconduct in the royal tradition. He has always lived steadily in the royal behavior of the King.

It can be said that Tasaphitrajadhamma is an innovative development of educational administration

according to Buddhist principles. For administrators and rulers or kings, there are 10 such things. Therefore, the administrators or the rulers that consist of the 10 rajadhammas are those who prosper with morals, meditation and wisdom along with the other kings of Thailand, the rajadhammas have always been used in governing the country to make the country peaceful.

VI. RECOMMENDATIONS

1) Should prepare a manual on the principles of Buddhism consistent with the principles of educational administration self-possession and occupation, and a manual for applying Buddhist principles to educational administration.

2) Should write articles on Buddhism principles for self-development, human development and work development.

3) Should be a research study on "effectiveness of educational personnel management under Mahachulalongkornrajavidyalaya University using the principles of Buddhism "Kalayanamitra".

CONCLUSION

The development of educational administration innovation according to the Buddhist principles is a model of action of the executives in applying the principles that appear in the Buddhist method to create motivation to drive personnel to show behavior in a direction. It is to achieve a desired purpose or condition and to induce, persuade, support, promote morale for educational personnel to perform work with determination, willingness and dedication to make the work more efficient and effective. Educational administration innovation is able to utilize their knowledge and potential to make the most of create a driving force to lead the organization to achieve the goals and to carry on carefully all around which will be with perseverance in a favorable way. Perseverance itself is charity, and the result of perseverance will create and develop management at all levels that may be summarized as self-management, people management, and administration, which are important principles and can be applied to educational administration, namely Brahma vihara IV, fair for executives. The administrators to rule the people must rely on the so-called dharma. The dharma of an adult is love, compassion, generosity, and neutral, that is, the exercise of authority or grace. Administrative control and the ten principles of the king or the administrators. These are ten things that are of great importance. Generally, administrators have the right and power to direct and conduct group activities. If the administrators or the rulers are without virtues of the group will live together without peace. The group itself will not progress among any group. However, at present, the study of administration according to the Buddhist principles, educators, and service workers pay more attention. Leadership development, in particular, is essential in encouraging subordinates to live together happily. There is a successful and sustainable development in the organization by adhering to the Buddhist principles accepted by society with reference to bring about leadership with Buddhist ethics, having not yet achieved widespread achievement. This is probably because most people in the organization do not see clearly that the principles that are used to act individually will bring benefits to others or how people in the organization especially the sacrifice of the people in the organization. Leaders need to sacrifice their personal interests. It is therefore extremely difficult to make decisions in the loss of personal interest for the public. Since there are many Buddhist principles which are consistent with administrative principles and is appropriate for management in different contexts. This article outlines the guidelines for educational institution administration with Buddhist principles as a basis that will benefit the administrators of educational institutes and agencies involved in the education institute for further application.

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Development of Administrative Management for Charity School in Buddhist Temples

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Abstract—This academic article was to propose the development of administrative management for charity school in Buddhist temples. This paper was written from area studies in the collaborative activities in schools and communities cooperated with 3 organizations consisted of home, temple and school in friendly for sustainable coordination. These three harmonize together in a manner that was known as being born from the mind who wants to participate in a particular activity in order to affect the needs of people in line with the social way of life. Therefore, providing the community enter to truly get involved of participation activities need to be considered lifestyle, noble values, culture and attitude for voluntarily participatein community-based activities that supported by public schools and temples. The religious training team advises personnel, students and community members to gain sustainable morality. Mission of great importance is that the school administrators must be able to lead the organization to survive and must set a plan and method as well as various steps in operating systematically by relying on the budget and resources from the state that needs to use with saving and wisely including people, money, time and other assets. If the administrative system within the school is not good, it will affect other parts of the organization. Therefore, success or failure in the school administration will depend on the competency of the school administrators.

Index Terms—*Administrative Management, Charity School,Buddhist Temples*

I. INTRODUCTION

At present, the school is an institution of society that arising from the needs of society to perform the main duty of organizing teaching and learning activities for members of society by educating and teach to develop people to flourish, have knowledge, ability, morality, morality, good culture. They are honest, selfless, and willing to train together in various missions for the benefit of society as a whole, education is the process of learning what happens to all life and is also a process of transferring knowledge and culture. This can be said that it is a process by which people develop their abilities in terms of attitudeand behavior according to social values, as well as the process of transferring knowledge, both ordinary and professional, moral and cultural. The key is an indication of the conduct and use of knowledge to benefit society as a whole, which is a good attitude of kindnesswhich treats the public in a good way. It gives rise to skills, fluency, and expertise to follow in appropriate way according to the moral scope, both external conduct and internal virtue are important. Administration is a process of working with people and by people. That is not successful because of people due to there is no way to behave to have adequate spending. If they are in a relationship, they will not suffer and commit any corruption.

When he knows how to live his own life well, would inevitably be widespread in those around him, able to help, can support others, participation in the community will be able to make society,and the community is only generous, generous, or is the principle of mutual aid. There is alms that isthe sacrifice or the generosity of sharing of oneself for the benefit of others,not stingy, not a single person. This virtue will help you to avoid being greed,not selfishly speaking is speaking with sweet words. Sincere do not speak rude and aggressivesay what is helpful, suitable for the time. The Lord Buddha places great emphasis on speech. Objectivity is all kind of relief or behavior that is beneficial to others. Samanattata is to be consistentor always having behavior that is consistent treat other people equally appropriate to the status quo.[2]

In the academic year 1977, the Office of the Private Education Commission has issued a policy and work plan in accordance with the National Education Act, 1977, therefore, added the educational development policy in terms of quantity to promote the organization of a non-governmental charity school for the academic year 1978-1980, the Office of the Private Education Commission has brought such proposals to work on the development trial project of the temple's public school for charity by having selected schools in different regions, 11 schools are

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participating in the program, including Phutthamongkolnimit School, Saman Khun Wittayatan School, Suwan RangsalitWittayalai School, Wat Ban Pong SamakkhiKhunupatham School, Wat Mai Krongthong Secondary School, Wat Mahaphuttharam School,WinitSuksa School,PhayuhaWittaya School,PhuttachinaratPhitthaya School,ThammaratSuksa School, and Phinit Prasat School by establishing Council of the Government School of the temple for Charity first ascent with the Dharma of Yan Munee Licensee WinitSuksa School elected as the first chair of the council[3].

II. DEVELOPMENT OF THE TEMPLE CHARITY SCHOOL

The temple charity school in Buddhism is considered an alternativewhich was allowed to set up a school under the Private School Act B.E. 2488, which has arranged the same teaching and learning as the ordinary school, while having a focus on wanting students ethical. It has a purpose [4] aimed at enhancing knowledge and understanding of principles which lead to correct conduct of Buddhist principles and activities by controlling body, speech and mind within the framework of good morality, ethics and culture. They do not persecute themselves and others, able to benefit themselves and society, as well as have the characteristics of leadership and good followers to maintain themselves as good citizens in society. In a democracy with a monarchy at the same time the school has been supportedfrom the Sangha, which allows the temple monks and communities has entered a full role in education management with the Ministry of Education promoted and give special subsidies to the school because the temple charity school in Buddhism is a model school of education management to the person who cannot be self-sufficient, unattended or disadvantaged [5]. In the academic year 1977, the Office of the Private Education Commission has issued policies and plans in accordance with the National Education Act, 1977, therefore, added the educational development policy in terms of quantitywill especially promote the organization of a non-governmental charity school Temple Charity School in Buddhism. It was developed to be a progressive and a school of much higher quality, Office of the Private Education Commission, in particular, providing support to 100 percent according to the guidelines of the tuition fee subsidy card make the temple charity school in Buddhism have guarantees for financial security from the state to some extent. However, the development of the temple to make charity schools in Buddhismhas made sustainable progress to hope only the support from the budget that is subsidized alone is not enough. School administrators and teachers who perform school work are also required to have concepts and principles of work in line with social and global needs. Therefore, the school development can be successful.

III.CONCEPT OF SCHOOL DEVELPMENT

The history of the word development, when considered, can be found that is a trend of prosperity in the west or developed countries have flowed to underdeveloped countries or countries less advanced than the word development has been used to describe progress on par with western countrieswhich has a meaning covering many aspects. It is not understood the same in each country at different times. We will find that in the early stages of adopting the development concept used to emphasize economic growth. The transformation to a modern stateor industrial adaptation is a formulation methods and strategies for developing the country are different. The concept of development encompasses economic, social, political and cultural aspects. Development should be meant to make the lives of people happycomfort well-being development of arts, culture and mind and peacewhich in addition to being subject to exposure to material factors to meet physical needs. People still want to be developed in education, good environment recreation and development of various cultures and mindsets, all these needs are sometimes called "Quality development"to show that development is not only dependent on increasing the quantity of products or income. If it is more than satisfying the happiness of the people [6]. Development is a process that there must be elements of important indicators and must be integrated, including [7]:

1. There is a positive change, including always improving the economy and quality of life. If negative changes are not considered development. It is a change that has to be better, more prosperous, more work and must involve the four pillars: people, structure, technology and systems or jobsincluding the environment.

2. Changes must be controlledthe direction of change can be defined by a clear plan and lead to action that is clearly targeted and can be flexibly adjusted according to the circumstances and time of change convert to with the focus of being developed by the people for people and is a sustainable development.

3. The result of that development equity and new distribution must be created (redistribution) in the fair distribution of income and distribution of justice in terms of quality of life (Quality of Life) to people in the society fairlymust achieve true equality in opportunities (education, work, progress, etc.).

Planned or directed change, that is, development is not natural if it is human efforts to bring about change. By determining the direction or details in advance of what to develop, how to develop, how fast, how fast who will be the developer and who will be developed?

Development is the process of changing and improving the quality of life of the majority of people for the better. This includes matters that determine the value of people in each society. Therefore, the meaning of development varies

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over time. Location and nature of problems or needs of each society. The factors that support the change to be in a desirable direction are as follows [8] :

- It's a change that brings improvements for most people.
- It should be as dangerous as possible and beneficial to everyone, at the very least, that it should be able to meet the basic needs or desires needed for sustaining life.
- It is consistent with the needs of most people and does not destroy the environment.

In a fundamental sense of development is to bring about change in all areas of society. Development is not only income or economic development, nor is it technical,but development is a change in concept and change in action for the better. This is a change to meet the needs and bring about a better quality of life of all people.

IV. SCHOOL ADMINISTRATIVE MANAMENT

Administration refers to the activities in which two or more people cooperate with each other to achieve one or more of the objectives jointly defined by individuals, using a systematic process and appropriately providing resources and techniques [9].Managing is to bring a group of people in an organization to work together to achieve the common objectives of the organization. Management consists of planning,organization management, selection of personnel directing,and to control the organization or its efforts to achieve common objectives. Resource management consists of the use and placement of human resources. Financial resources, technology resources,and the shared natural resources of the group of people.

School refers to the legal body that has dutiesor have an objective in organizing education. Whether it belongs to the public or private sector the school administrators are in charge of the school administration and teacher management to perform the main teaching and learning duties and promote the learning of learners. Each school has an environment, factors, and cultures differin the administration of education in all schools, administrators are required to study principles, concepts and theoriesvaried to be adapted to suit the school context provide education as a life-long education for the people to allow society to participate in the provision of education, material development, and the learning process is ongoing.

School administration refers to the work process in which the school administration performs a systematic mission in the school it runs. School administration is the process of working by the group of administrators to develop or provide educational services to members of society to meet the course objectives school administrators are therefore important persons who have roles and authority in managing the school to achieve the objectives set by the organizationand able to provide educational services to the society as well according to the main mission of educational institutions that the National Education Act

B.E. 2542 and the Amendment (No. 2), B.E. with freedom, flexibility and speed.

Administration is extremely important to the operation of an organization. Because it is an important tool to point out success or failure Efficiency or inefficiency of the organization administration is an indication of the progress of society,advancement of various technologies. Management is an important path to advancement, a collaborative nature of group of people in an organizationwhich has ordered. Management must take into account various environmental factors. Executive diagnostics demonstrate the competence of managementand the growth of human daily life management, whether in any family or organization of course, it is always involved in the administration, so the management is interestingand necessary for human life in society by virtue of the principle create attitude to make it easier, more convenient, more peaceful, there is peace among many administrators, scholars and educatorsand has given the meaning of management in many perspectives which can be summarized as follows:

Management generally looks like a processor is the procedure for performing tasks in order of management in which the administration. The list must be listed firstwhat to do first and what to do next, which is considered a scientific methodology (scientific management) management process will determine the scopeand functions according to various procedures. It is clearly academicand foreign administrators and educators have given ideas about the administrative process as follows:

The Secretariat of the Teachers Council of Thailand has set standards. The Education Administrators of the Teachers Council of Thailand B.E. 2540 have discussed the guidelines for performing the duties of the school administrators as follows: [10]

1.Perform academic activities related to the professional development of educational administration.

2.Make decisions on activities. It must take into account the impact that will occur on the development of personnel, learners and the community.

3. Strive to develop colleagues to be able to work to their full potential.

4. Develop work plans of the organization to be able to be effective and effective.

5. Develop and apply management innovation until resulting in higher quality results.

6. Performance of the organization with an emphasis on permanent results.

7. A systematic report on the results of educational quality development.

8. Act as a good role model

9. Cooperate with the community and other agencies constructively.

10. Seek and use information for development.

11.Be a leader and build a leader.

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12.Create development opportunities in every situation. Administration is a behaviorwhich is a social process used by administrators to make decisions as a guideline for the management of various departments or organizations. Both public and private organizations achieve the objectives according to the goals by bringing resources to use economically and make the most of in which doing so requires both science and art so that people with different gender, age, educational background, work experience, position, salary, welfare are different. It is not an obstacle to working cooperation, an administrative process. It is a mission that administrators must perform their duties in the sequence of stages of academic administration, personnel, student activities. Administration and finance, premises and relationships between the school and the community. Promoting each other will be a system for efficiency and maximum effectiveness for the organization. The temple charity school in Buddhism was originally called public school of the temple occurs according to the regulations of the Ministry of Education regarding the public school of the Buddhist era in 1941, the temple charity school in Buddhism has encountered a problemin operation throughout, because of the early days are subsidized like other private schools and cannot collect tuition fees from parents of students. Because 95% of the parents' parents are poor, some schools have to go out of business and some have transferred their businesses to the government (in the past).

V. DEVELOPMENT OF A TEMPLE CHARITY SCHOOL IN BUDDHISM TO BE SUSTAINABLE

"Education for all people, all people for education",Thailand has always put emphasis on sustainable education development for all. Whether they are Thais, ethnic groups, priests, women, children or even the elderly. Whether they are Thai people by blood or people who come to work or live in Thailand, whether they are entitled to education in the country everyon especially when the National Education Act 1999 and Amendment No. 2 B.E. 2545 stipulated the aim of Thai education that "Education management must be in order to develop Thai people to become complete human beings, body, mind, intelligence, knowledge and morality, ethical and culturalin life, able to live happily with others and set the principles of education management as 1. It is a life-long education for the people (everyone), 2. Engage the society in the provision of education and 3. The development of the subject matter and learning process to be continuous [11].

These principles reflect the Thai philosophy of providing education for all people. All people for education and is the study or learning continues throughout life by stating that "The provision of education shall provide persons with equal rights and opportunities to receive at least twelve years of basic education that the state shall provide,

comprehensively and of quality, free of charge" to be provided by the statewith the people in line with the United Nations program above and more importantly, in addition to what the United Nations requires determining the participation of society in the provision of education; It is the distribution of educational power to the people that allow them to play a role in the management of education or support education equally. As Thai people who should take responsibility for Thai education together. Such educational participation is practically reflected in the 1. Establish an education committee at all levels from the policy level. Education area level and educational institutions with representatives of government, private sector, local government organizations, alumni, priests, social institutions and relevant educational qualifications 2. Private Giving Local government organization, family, community, community organization, religious institution, establishment, other social institutions to have the right to provide basic education, having the right to receive academic support receiving state subsidies, and tax exemptions 3. Public education affects the private sector. There must be a public hearing. 4. Providing opportunities for funding and resources for education from all sectorswhich means that people of all sectors can come to support scholarships and resources for education, various educational institutions 5. Participation in monitoring the teaching quality of teachers, reflecting to society from time to time by parents.

It can be seen that the direction of education management in Thailand has always been consistent with international. At the same time, it is based on the Thai identity in the context of society, religion, culture, especially the philosophy of sufficiency economy. The process of participation makes Thailand and Thai people have been sustainable until now. Despite having suffered from both the Thai crisis and the world crisis.

VI. METHODS AND PROCEDURES FOR THE DEVELOPMENT OF THE TEMPLE CHARITY SCHOOL IN BUDDHISM

1. Participate in thinking schools and learning sources, creating a community of teachers, administrators, school directors, community, stakeholders, acknowledge the problems, needs of learners, parents, guardians, communities, and joint vision of educational institutes for successful educational management.

2. Make decisions when there are activities that require comments, joint decisions affecting the management, stakeholder, interests of learners and the public. Teachers, administrators, school directors and stakeholders will make decisions together on the basis ofinformation about educational institutions and communities.

3. Co-planning, joint operation planning according to the establishment of the community, both formulate a strategic plan, development plan, action plan, and project

assignments. and activities meet the needs of the learners and the common community.

4. Join the action when assigning any operation of the school andlearning resource, caused by common thinking, plan together the administrators, teachers, educational institutions, and stakeholders have operations in that activityaccording to the shared mission.

5. Take responsibility when being activities to be performed and results of operations, both positive and negative, the administrators, teachers, school directors, and stakeholderswill be responsible for the results that occur together without leaving it to the problem of any one. Such responsibilities are based on the level of responsibilities, such as executives having administrative duties. The teacher is responsible for teachingand provides learning experience,learning development wisdom. Teaches and parents co-introduce monitor the learning of your children. Communities and community organizations are responsible for supporting learning and resource mobilization activities.

6. Co-solve problems when there is a problem arising from the administration or operation of the administrators, teachers, school directors. Stakeholders have ways to find a solution together to accomplish this well.

7. Join in monitoring and evaluation, during and after operation, administrators, teachers, educational institution directors and stakeholders are monitored and evaluated for improvement and development of joint work in learning evaluation activities. Parents can also take part in the assessment of learners.

CONCLUSION

The development of the administration of the charity school in Buddhist templesto be successful, school administrators have to study a model in the management of how to develop to reach the goal, to be effective, appropriate to the context and various factors of the school and must understand the work of the organization systematically. For subsystems of internal and external systems of the organization, the development of educational administration is different from the previous studies. It is an administration that can be disclosed to the public and persons with stakeholders involved in all parties for acknowledgment and verifications. It is good for the school that trust will be accepted quality assurance from parents and communities. The current school administration management methods need to be adjusted to focus on development which is consistent with the changing situation. It is necessary that the management, teachers and educational personnel should have knowledge of understanding and develop the school systematically in order to develop students to become perfect human beings, focus on educational excellence, the students will be trained to be good and wise and gives rise to happiness according to the potential development of educational administration.The aims are to achieve good results and achieve the objectives as specified. It is the duty

of all concerned persons to know and understand the aims of educational management and to work together for the best benefit.

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Technological Innovation for Online Learning during the Situation of COVID-19 Pandemic in Thailand

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Abstract—Online learning in Thailand during the situation of COVID-19 pandemic is appropriate for current educational management. This learning method has been shown good prevention of COVID-19 pandemic, and it was being a measure to control the situation effectively. The purpose of this academic paper was to propose technological innovation for online learning during the situation of COVID-19 pandemic. Documentary study was used for data collection and data were analyzed and presented by descriptive writing. Results of the study indicated that educational technology has played important role for teaching and instruction during COVID-19 pandemic. Active learning and collaborative activities have been using for the learners to have the opportunity to study from home during the situation of COVID-19 pandemic. Various technological platforms were used for online learning consisted of Google meet, Google Classroom, Google Hangout Meet, Live Streaming, Tencent Live Broadcast, Microsoft teams, and Zoom. These teaching instruments are required and all educational personnel should be able to use with effectively in order to encourage their learners on teaching and instruction. Therefore, technological innovations for online learning are developed for teaching and learning in New Normal not only in Thailand, but also all over the world. Blended learning was also being used and teachers need to adjust how to manage their classroom in online platform and how to moderate or mentor with online learning during the situation of COVID-19 pandemic.

Index Terms— Inexperienced Parents, Stability Reinforcement, Buddhism

I. INTRODUCTION

The concept of technological innovation for learning has been of constant importance to the global society ever since we have heard the term "The Third Wave", according to Alvin Topler, mentioned the term "Globalization" is the rapid influx of information from one corner of the world to another, and the term turbulent world (Disruption) is a rapid change in technology flows innovation and social media. When it comes across a strong and fast catalyst, the COVID-19 epidemic, the global society is subjected to automatic change under the term New normal, transforming humanity of learning history in the wake of the terrible COVID-19 epidemic. Online learning has become a necessity or a new way of learning in current global society. Whether voluntary or not, online learning is therefore a new paradigm in teaching and learning in the New Normal era.

It will first mention the importance of "online" as an innovative technology for learning. It will give an overview or a broad picture of the technological innovation for learning to be the first floor covering first. In formulating Thailand's national education policy, the educational policy supervisor established the national education standard in 2018 by determining the desirable outcomes of education (DOE Thailand) or the characteristics of the Thai 4.0 people responding to the world that change in the future and the vision of national development towards stability, prosperity, and sustainability. It is a person with three characteristics consisted of being a learner, innovation co-creator, and a strong citizen focusing on the main principles in practice. The provision of education is appropriate to the context of the learner, community area and society, including the freedom of the educational institution to determine the identity and directions for education management that meet the needs of learners of the local community (Office of the Education Council Secretariat, 2018) [1].

Wirathai Santipraphob (2019) mentioned that "Thai people" preparation for the modern world that Thai people can cope with changes in the modern world at least four

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skills are required: 1) lifelong learning skills, 2) financial planning skills, 3) social coexistence skills, and 4) good mental immunity. The urgent burden of Thai society for human resource development is stressed, and that is to improve various motives correct human development throughout life along with the application of technology and innovation to enable Thais to develop and elevate themselves to the context of the modern world quickly and efficiently (Wirathai Santipraphob, 2019: 10-21) [2].

From the article of Numporn Nithisunthornwit (1990) on the title of "Science Development Technology and innovation to enhance Thailand's competitiveness " mentioned support for enhancing economic competitiveness and laying the foundation for sustainable development. They should focus on the application of existing technology. The development of local wisdom Developing innovations that meet the needs of the manufacturing sector Strengthening the foundation of scientific thinking for youth and Thai society and continuously develop science and technology personnel to enhance the development that leads to the economy and society, sustainable learning by approaches such as 1) development and application and development of technologies that are important to increase productivity by supporting research and development according to the potential of entrepreneurs, both large and small and SMEs, adopt modern technology to be adapted to meet local wisdom and the manufacturing sector appropriately and in line with market needs. Along with supporting the private sector to be a leader in research and development including technology and innovation for commercial use with a focus on the field of manufacturing that Thailand has potential. Interesting issues of this paper in the area of capacity building in health and welfare, it is to improve the quality of life of Thai people by promoting research and development in biotechnology, medical and public health to monitor and prevent heal and restore including research and development of chemicals, bio-products and equipment as well as to produce main drugs in the country to treat common diseases to meet the needs of all circumstances. 2) To initiate innovative development by supporting the introduction of new technologies, concepts and management to develop innovation in industrial processing from agricultural raw materials food industry and equipment for maintaining environmental conditions promote the use of machinery and tools of Thai people especially agricultural machinery. It is including improving agricultural machinery to have quality standards to reduce machinery imports and reduce production costs. 3) Reform the education system and develop learning processes to strengthen the concept and knowledge about the use of science and technology to keep up with the changes and modern science focus on students to think, analyze and solve problems systematically,

logically as a science and take action by yourself and providing opportunities for the community and the private sector to participate in curriculum development and teaching and learning evaluation (Numporn Nithisunthornwit, 2013: 37-44) [3].

II. Online Teaching and Learning Management Online Teaching and Learning in Wuhan at the Start of COVID-19 Outbreak

When the disease is infected with COVID-19 Epidemic started in Wuhan, China, the Chinese authorities announced a ban on people traveling, including the closure of classes from January 13, 2010 until February 10, 2020. The Wuhan Department of Education announced the closure of classes but did not stop teaching by announcing a ban on teachers, students and government personnel to meet together to prepare for teaching and learning as well as allowing educational institutions to open online teaching and learning at the same time for all levels of education. On the official opening day of the semester require all students to sing the national anthem in unison online, in front of a computer monitor, laptop, mobile phone. The school has chosen a student representative to be an online. The school director welcomed the students and gave a sermon. Most of the themes address the social malfunctions caused by the COVID-19 epidemic, let students understand the difficult situation of the country by asking students to have love empathize, unite, let everyone do their duty and be responsible for society, country and world society. As well as encouraging that Wuhan will be able to overcome this disaster and students will soon return to their school same as instructing students to attend online classes in accordance with the schedule provided since there is still checking the name of the participants like studying in a school classroom.

This is because China had not previously prepared to offer such a broad range of online teaching and learning. The government has spent a certain amount of budget to implement this matter and private grandchildren have been involved in the design of the Application (App) in a variety of formats. So that the education department can use them to suit the conditions in each area and each subject. For preparing teachers, faculty, educational personnel, and the government has created a program for educating teachers and faculty members to be competent in online tutoring on the website. www.eduyun.cn, a national public service platform for educational resources that guides teachers and faculty with instructional procedures and methods to teach online by preparing staff to answer questions when teachers and faculty have problems. Teachers in different schools can use App with free of charge. In addition, the Wuhan Department of Education has ordered teachers and faculty to jointly create (Online coordination) courses, teaching

materials carry out planning, prepare instruction manual and lifestyle plan for students with an emphasis on maintaining the mental state of students. They also establish a system for reporting students outside the school and schedule a time to communicate with students to get an idea of each student's online learning situation either by telephone or any other form of online communication. There is an emphasis on the care of individual students in which the homeroom teacher or the subject must act as a guide and be a mentor in the teaching hours. Some subjects may have outstanding national teachers as teachers in the App provided by the Department of Education where teachers and students will learn together.

Parents are also one of those affected by this online teaching. For teaching preschool and elementary school students, parents need to provide their children with online tools with at least a cell phone. It may be necessary to help a young child download the textbooks, learning materials before the online study hours. Most of the students are excited about this innovative way of learning. Even at first there was a problem for some students who still did not download the document completely. Due to the large number of users, there is some involvement. The Wuhan Department of Education conducted an evaluation of the results of the tuition in the two weeks following the opening of the online semester. It can be summarized as follows advantages students have the opportunity to study with some of the country's best teachers and faculty members. It is because the class teacher or the subject can download the App for outstanding teachers or teachers of the country to teach. It is a great opportunity for students. It is one way to distribute the equality of learning opportunities. While the teachers had the opportunity to learn good quality teachers teaching methods, parents can download information, documents, texts, App with good quality and given to children without cost.

III. Obstacles that are a challenge to improve and improve

1) Internet signal in some places is not strong enough for large usage. 2) Teachers, students and parents lacked online learning experience. It made me feel that the teaching was not as convenient as studying in the classroom that can communicate in two ways and see each other clearly in every angle.

2) Hours of online study through mobile phones, notebooks, computers all day causing pupils to have visual problems and after-hours students lose concentration.

3) Students who are slow to learn according to online teaching because when the teacher explained it passed, it was passed. Students have to wait until the end of the hour,

then the teacher will have time to ask questions or exchange ideas for half an hour. If students sometime in doubt of the content, they are unable to understand the next step [4].

IV. Online Instruction in the USA

Online learning in USA has been using for along time as Kyong-Jee Kim and Curtis J. Bonk (2006) [5] mentioned in "The Future of Online Teaching and Learning in Higher Education" that a recent survey of higher education in the United States reported that more than 2.35 million students enrolled in online courses in fall 2004. This report also noted that online education is becoming an important long-term strategy for many postsecondary institutions. Given the rapid growth of online education and its importance for postsecondary institutions, it is imperative that institutions of higher education provide quality online programs. The literature addresses student achievement and satisfaction as two means to assess the quality of online education. Studies focused on academic achievement have shown mixed reviews, but some researchers point out that online education can be at least as effective as traditional classroom instruction. Several research studies on student satisfaction in online courses or programs reported both satisfied and dissatisfied students. Faculty training and support is another critical component of quality online education. Many researchers posit that instructors play a different role from that of traditional classroom instructors when they teach online courses as well as when they teach residential courses with web enhancements. Such new roles for online instructors require training and support. Some case studies of faculty development programs indicate that such programs can have positive impacts on instructor transitions from teaching in a face-to-face to an online setting.

As institutions of higher education continue to embrace and debate online learning, it is important to envision where the field is headed. What might the next generation of online learning environments look like? Will they move from warehousing students in online environments to engaging them in and motivational activities? What technological and pedagogical advantages will they offer? Current studies provide a glimpse of the pedagogical and technological possibilities. Clearly, we are entering a unique and exciting era in online teaching and learning. And perhaps the perfect e-storm is becoming less cloudy and ominous.

For implications of the findings, institutions of higher education need to consider whether they are ready to meet growing learner demands in the coming years. First of all, most respondents agreed that blended learning would have

greater significance in higher education in the future. Although some institutions have already embraced blended learning, many others are slower at adopting it for various reasons. Perhaps leadership from the institution is crucial for faculty to receive adequate support to implement changes in the teaching process.

If the quality of online education is to improve as projected from this study, campuses must also look at the pedagogical issues in online learning. Collaboration, case learning, and PBL are likely to be the preferred methods of online instructors, with few relying solely on traditional methods. The data presented here also indicate that the continued explosion in online learning will bring increased attention to workshops, courses, and degree programs in how to moderate or mentor with online learning, and given that many respondents expect to receive some sort of training and support from their institutions to be ready for online teaching, colleges and universities need to consider how they will respond to these needs.

In addition, our study indicates that postsecondary institutions are finally focusing on how online learning can develop student collaboration and evaluation skills. In fact, most now see the potential of the web in the coming years as a tool for virtual teaming or collaboration, critical thinking, and enhanced student engagement, though not necessarily as a tool for creative and individual expression. Do current CMSs provide tools to realize the potentials of the Web for innovative teaching and learning? Perhaps recent developments in open source courseware will force CMS vendors to develop and market more pedagogically engaging tools and resources.

This survey also forecasts enormous growth in online certification and recertification programs, as well as some growth in associate's and master's degree programs during the coming decade. In terms of technology, the study reveals interest among online instructors in wireless technologies, simulations, digital libraries, and reusable content objects. We perhaps are entering a world where learning objects will be at our fingertips. Learning objects on different topics will likely be something you can grab like magazines and newspapers on the way into a plane, bus, or train. In addition, as bandwidth increases with the next-generation internet technologies and capabilities, simulation and gaming tasks that online students engage in will be more realistic and authentic (Kyong-Jee Kim and Curtis J. Bonk, 2006: 22-29) [6].

Elaine Allen and Jeff Seaman (2010) [7] mentioned that Learning on Demand: Online Education in the United States, 2009 (Learning on Demand: Online Education in the United States, 2009) represents the seventh annual report on the state of online learning among higher education institutions in the United States. The study is aimed at answering some of the fundamental questions about the nature and extent of online education based on responses from over 2,500 colleges and universities, the report addresses the following key questions: (1) How Many Students are Learning Online?; (2) What is the Impact of the Economy on Online Education?; (3) What Contingency Plans do Institutions Have for H1N1?; (4) Is Online Learning Strategic?; (5) Has Faculty Acceptance of Online Increased?; and (6) Do Faculty Receiving Training for Teaching Online? The survey analysis is based on a comprehensive sample of active, degree-granting institutions of higher education in the United States that are open to the public. Findings reveal that online enrollments have continued to grow at rates far in excess of the total higher education student population, with the most recent data demonstrating no signs of slowing. Academic leaders at all types of institutions report increased demand for face-to-face and online courses, with those at public institutions seeing the largest impact. In all cases the demand for online offerings is greater than that for the corresponding face-to-face offerings. Proponents of online learning have long posited that moving face-to-face classes online could become an important component of academic continuity planning. A potential H1N1 pandemic is such an event that might trigger such planning. This year's results show a very small increase from the previous year and begin to signal that a plateau may have been reached by institutions believing that online is critical to their long-term strategy. While the number of programs and courses online continue to grow, the acceptance of this learning modality by faculty has been relatively constant since first measured in 2002. There is no single approach being taken by institutions in providing training for their teaching faculty. Most institutions use a combination of mentoring and training options. Additional tables are appended. [For the previous report, "Staying the Course: Online Education in the United States, 2008."

This idea will lead to the introduction of innovative technologies for online learning during the COVID-19 epidemic. The more concrete issue will be discussed further.

V. ONLINE LEARNING

From the article of Aaron Doering (2007) [8] indicated that "Adventure Learning: Transformative hybrid online education" mentioned that Adventure Learning (AL) is a hybrid distance education approach that provides students with opportunities to explore real-world issues through authentic learning experiences within collaborative learning environments. This article defines this online distance education approach, outlines an AL framework, and showcases an AL archetype. In AL environments,

classroom teachers are not positioned in the role of teacher/facilitator/designer in the online learning spaces. AL online spaces are collaborative spaces where students, teachers, subject experts, and AL team members interact with one another; these are community spaces where traditional hierarchical classroom roles are blurred. Student' roles transform due to the flexibility and design of the AL learning environments as they move from student to reflective practitioner, providing for new ways of learning and teaching.

In the research of Sean B. Eom, H. Joseph Wen and Nicholas Ashill (2006) [9] on "The Determinants of Students' Perceived Learning Outcomes and Satisfaction in University Online Education: An Empirical Investigation" In this study, structural equation modeling is applied to examine the determinants of students' satisfaction and their perceived learning outcomes in the context of university online courses. Independent variables included in the study are course structure, instructor feedback, self-motivation, learning style, interaction, and instructor facilitation as potential determinants of online learning. A total of 397 valid unduplicated responses from students who have completed at least one online course at a university in the Midwest were used to examine the structural model. The results indicated that all of the antecedent variables significantly affect students' satisfaction of the six antecedent variables hypothesized to affect the perceived learning outcomes, only instructor feed-back and learning style are significant. The structural model results also reveal that user satisfaction is a significant predictor of learning outcomes. The findings suggested that online education can be a superior mode of instruction if it is targeted to learners with specific learning styles (visual and read/write learning styles) and with timely, meaningful instructor feedback of various types.

VI. TECHNOLOGICAL INNOVATIONS FOR ONLINE LEARNING DURING THE COVID-19 EPIDEMIC

As COVID-19 accelerates education systems around the world, more educational technology is used, as Jeanne Allen, founder and CEO of the Center for Education Reform, analyzed in Forbes (WORATHAN TECHNOLOGY, 2020) [10] that there was a saying that: every challenge times as with many educational systems in the past, many educational systems have long resisted structural changes. As a result of the development of the Coronavirus, or COVID-19 pandemic, education sector is imperative to find a way for the education system to continue with effectively.

The use of educational technology or educational technology used in teaching and learning help to make the presentation of teaching and learning content more interesting and build engagement between students and more teachers. Even when everyone has to live within their accommodation during COVID-19 situations, this ensures that students will not miss their learning and help students learning path, and can move on for example New Jersey began considering legislation that educational institutions can use "Virtual Education" technology in their teaching and learning. When an emergency occurs, such as the outbreak of the COVID-19 virus, but Jeanne Allen asks whether so why use technology and education only in an emergency? Because in the creation of new educational standards, the world of Educational Technology or "EdTech" allows faster, smarter and more efficient teaching and learning styles. Personalization for example, the Northshore School District case study, which has 33 schools, has designed teaching and learning to be cloud based and used online as a teaching tool to build 21st century skills for student's digital skills, critical thinking, problem solving, collaboration, creativity which learning through the cloud system allows students to learn continuously and leave the framework of learning that is limited to the rectangular classroom. There is an application about education and has AR, VR and AI technologies to meet the needs of education for learners. We don't need a crisis and to rethink the education system, but technology can change the role of teachers from being a guide into sponsorship and give advice to learners. It is hoped that the COVID-19 situation will mirror that innovation and technology can help students. Students and educational institutions go through this time and will continue to see the use of innovation and education technology is typical of the education system using "Tech Company" technology platform to create "online classrooms", where you can learn, one of the most obvious phenomena in the COVID-19 situation is that Tech Company's technology platform is applied to online teaching and learning. Nowadays, people access the internet and communication technology developed in 4G and some countries have reached 5G, making online teaching more convenient and faster, such as

1) DingTalk communication platform and working in the organization, another Alibaba-affiliated service has been applied to online teaching and learning systems in China. During the COVID-19 crisis, more than 50 million students. Students participated in the online classroom program. It is open to more than 600,000 teachers teaching various subjects via Live Streaming.

2) Tencent uses Tencent Live Broadcast to meet online education needs in China during the COVID-19 epidemic, such as in Wuhan. The data on February 10, the past found that on Tencent's Live Streaming system, there are elementary school students and junior high school in

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Wuhan, up to 81 percent or more than 730,000 people of the number of primary school students and junior high school in Wuhan, all more than 900,000 people learn online via Tencent Live Streaming.

3) Google Hangout Meet which an online meeting technology supporting multiple people meetings as well as being able to live streaming to support a large audience and save the meeting on Google Drive.

It appears that during COVID-19, schools and universities turn to use these two Google products to make teaching and learning easier outside the classroom (Marketingoops, 2020) [11]. These tools are essential to provide the teaching and learning that teachers and educational personnel must learn how to apply technological innovations for online learning during the COVID-19 epidemic in order to be effective in teaching and learning in this New Normal era.

Fig.1 The New Normal way in which education is not in class, school, university, but everywhere, anytime under the goal of learning to learn remains the same, but the method has changed.

VII. TECHNOLOGY AND INNOVATION TO SUPPORT TEACHING AND LEARNING AMONG COVID-19

Online teaching has interesting technologies and innovations as follows:

A. LMS2@PSU (LMS Model)

The LMS @ PSU system was established for the purpose of supporting the teaching and learning of teachers and students within Prince of Songkla University. The system itself is based on a free software called Moodle (Modular Object-Oriented Dynamic Learning Environment), which allows users to create online lessons in the system to apply them to teaching in the form. The way the teacher wants the highlight is that it is an existing university learning management system. There are tools to assist in student management. There are tools to assist in the preparation of content and links such as Word, Power Point, Youtube, communication tools such as Chat, Webboard, Zoom Plugin, learning measurement and evaluation tools such as Quiz, Poll, Survey, and support for theory. The disadvantage is that it is difficult to use and complex tools.

B. Microsoft Teams

Microsoft Teams is a Microsoft service that is a hub for teamwork in Office 365 with full functionality, such as inviting everyone you work with to chat, meet, call, and collaborate on the single place. It is no matter where the user is for schools, Microsoft Teams will be in Office 365 Education, a customized hub for managing classes such as school material. Student notebook assignment creation of exercises, tests, grading, online teaching, etc. The highlight is that it is an existing university learning management system, and can be used with all communication tools such as PC, Notebook, Tablet, Ipad, Smart Phone. It also can be used with all operating systems Windows, macOS, iOS, Android. There is a student management tool. There are tools to help you prepare content and links and have communication tools. There are tools to measure and evaluate grades, have AI and bot systems such as anti-piracy systems, making a quiz, and creating a survey.

C. Google Classroom

Google Classroom, a Google service, is a tool that facilitates education, designed to give teachers more time to communicate with learners, while at the same time they have more time to search for information. As well Key

Google Classroom capabilities include: Create and store study data using Google Docs, Drive, and Gmail. Teachers can review their studies at all times and provide guidance to students at any time. Increase communication channels between teachers and learners. This allows them to provide guidance to students at all times, even when they are not in the classroom. Each student's information folder can be categorized, and each student can easily use the information. The highlight is the existing university learning management system. Can be used with all communication tools such as PC, Notebook, Tablet, Ipad, Smart Phone. Can be used with all operating systems Windows, macOS, iOS, Android. There is a student management tool. There are tools to help you prepare content and links and have communication tools There are tools to measure and evaluate grades, have AI and bot systems such as anti-piracy systems, making a quiz, and creating a survey.

Example of using Google Classroom at Faculty of Education, Mahachulalongkornrajavidyalaya University, Thailand which have been set for teaching and learning during COVID-19 situation.

Fig.2 Online Classroom in Faculty of Education, MCU, Thailand

D. Teach by YourSelf (Self Model)

Teachers provide self-teaching through live teaching and conference tools such as Zoom, -OBS Studio, loom, Cisco Webex, and Skype. The highlight is that it can be used with all communication tools such as PC, Notebook, Tablet, Ipad, Smart Phone and can be used with all operating systems. The disadvantage is that there is no learning management tool for students. There are no tools to assist in providing content and links, and there are no tools to measure and evaluate grades.

E. Virtual & Mobile Studio (Techno Model)

The highlight is that the teacher can prepare the content in both theory and practice, record high-definition videos of instruction, broadcast live via Youtube and Facebook, and support both theory and practice courses. (Both in the studio and in the LAB). The disadvantage is that there is no learning management tool for students. There are no tools to assist in providing content and links and no communication tools. There are no tools to measure and evaluate grades. (Department of Technology and Learning Innovation Office of Academic Resources Prince of Songkla University, 2020) [12].

Fig. 3 Learning Activities through Online Platform

CONCLUSION

Thai online teaching and learning under the epidemic situation of Coronavirus disease 2019 (COVID-19) is therefore consistent with the current situation of the Thai study. It is also a good prevention of the spread of such

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viral disease and is also another measure to effectively control the disease. It is the study of the world context and apply them to the context of Thai society by 1) focusing on the curriculum adapted to the COVID-19 situation and communicate to all stakeholders of current Thai basic education curriculum, 2) Increase flexibility of structure, study time and diversity of learning styles. The flexibility to spend time and choice of study style allows teachers to design units that are appropriate and promote personalized learning, and 3) emphasis on accountability assessment should still be maintained, but should weigh the assessment of children's learning opportunities rather than measuring knowledge with exam scores. The current epidemic situation requires a variety of teaching and learning styles, so the quality of education that children receive in each area is not the same. Therefore, the same knowledge or skill score cannot be used to create liability. Otherwise, it may result in more inequality. The Ministry of Education should adjust the test-based criteria to weight the non-academic indicators (Non-academic measure) by collecting data on these metrics. Technology can help to reduce the burden of teachers, for example, use the Google Classroom system. This will help the districts to monitor and support the school more relevant to their needs.

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A Model of Management towards the Excellence of Buddhist Sunday Schools

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Abstract— This research paper aimed to propose a model of management towards the excellence of Buddhist Sunday School. Mixed methods research was designed and it was divided into three steps. The first step was to study management using questionnaires to collect from 109 teachers, and data were analyzed by descriptive statistics such as percentage, mean and standard deviation. The second step was to develop the model by interview10 key informants with an interview form. The third step was to propose the model with focus group discussion of 9 experts. Data was analyzed by content analysis. The research study found that management model for the excellence of Buddhist Sunday School was a participatory school management (Bovorn) and was the development of people to become a complete human being, both body, mind, intelligence, knowledge, along with morality, ethics, and culture of living, able to live happily with others consists of 5 elements: 1) Principle, 2) Purpose, 3) Procedure system, 4) Action process consisted of (1) School management at Home (Ban), Temple (Wat), School (Rong-Rian) or called "Bovon" in Thai, (2) Participation in curriculum administration, (3) The teacher is acted as a person of learning, (4) The development of the learner to be a perfect human being of good, clever and happy, (5) Buddhist teaching management integrated with modern science, (6) clean, shady, safe learning resources linked to Thai wisdom, (7) Kalayanamit evaluation, and 5) Evaluation.

Index Terms— ***Model of Management, Excellence, Buddhist Sunday School***

I. INTRODUCTION

Thailand has a National Education Development Plan in 2017 to 2036 as a 20-year long-term plan to be a national strategic plan with a vision that "All Thai people receive quality education and lifelong learning, live happily in accordance with the principles of sufficiency economy and the change of the world in the 21st century" to develop Thai society into a learning society and morality, ethics, knowledge, love and harmony and to cooperate in joining forces towards sustainable national development According to the philosophy of sufficiency economy the 20-year National Education Plan [1]. Then, there was subsequently promoted to monks and religious personnel, play a role in intellectual and psychological leadership, a good moral system, and a role in cultivating morals, values and behaviors suitable for Thai society.

Since society today has changed the economic structure Society and the environment causing the people's way of life and livelihoods to change rapidly, causing many problems including problems of deterioration from the moral value system, customs, traditions and national arts and culture. The moral and ethical decline that occurs in the minds of Thai people, as Somdet Puttakosacharn (Prayut Payutto) has said about the cause of social problems

in sustainable development. Thailand seems to have more problems and a lot of crisis things happen too much emphasis on western development. Focusing on material and technology, the psychological development is inefficient and uneven. Thailand has to turn to developing more minds in order to reduce many social problems and moral degradation especially in the present day when all parties call for moral and moral development in Thai society [2].

Sunday Buddhist School is a source of education and training for children and youth of the nation in order to behave well and act according to the principles of Buddhist teachings, have respect and uphold the good cultural traditions of the nation so that it does not fade away because any nation if there is no own culture or his existence was not. Sunday Buddhist School Mahachulalongkornrajavidyalaya University established to meet the needs of parents or guardians of children and youth while Thai society is in a moral crisis. That is why the government agencies and related organizations need to meet together to resolve this issue [3].

In the past, many of the Sunday Buddhist schools have had some problems. Many in operation from the research results of Office of Moral and Ethics Development,

Department of Religious Affairs, Ministry of Culture found that the educational management of current Sunday Buddhist School adhere to a fixed school framework causing unable to operate in accordance with the reality. As a result, management problems in both the administration of the school branches nationwide, the lack of continuous management as for the curriculum, there is still a lack of modernity as the teachers, most of the teachers are monks and novices who come to teach with faith, but may lack knowledge of teaching techniques, pedagogical psychology and may have several memorandums. Students are less likely to enroll in students from the family economy and lessened the interest of youths towards the education of Buddhism. Most of the teaching and learning aspects are based on a fixed teaching framework. Often inconsistent with the objective, evaluation principles, most of the curriculum assessments. Regarding the learning resources, the lack of places and factors in teaching media and equipment affected students' attendance which is why the trend of the number of branch schools and the number of students has decreased [4].

Nevertheless, the rate of the number of students completing the school curriculum based on the length of study from the first phase of the applicant's inquiry together with the rate of uncertainty each year. It can make the school cannot plan for appropriate manpower because there are 58 teachers, the proportion of the number of teachers per 21 students and the number of students is steadily decreasing comparing the academic year 2017 - 2018, the students decreased by 344, accounting for 29% in all four fields at the end of teaching that not completely [5].

From research on the Sunday Buddhist Center, there were several problems found, namely the research of Phrabaideeka Sorachai Shinwaro, found that the management of the Sunday Buddhist Center in each area found weaknesses, problems, obstacles that should be developed, improved, as follows: Academic management of curriculum to have clear content and lead practical budgeting: allocating budgets to meet needs personnel aspects support personnel to have higher education. The general administration promotes an environment conducive to teaching and learning [6] and the research of Maha Suchart Dhammakamo that the results of the research found current condition, administration of Sunday Buddhist Study Center academic administration management lacking knowledge understanding of management principles. Teachers lack knowledge, expertise, lack of modern teaching techniques, budget management, received insufficient funds for management, need to get support from outside the budget to spend personnel management, monks and teachers were not enough, and lack of teaching expertise general administration. In the building used in the study, most of the teaching is done using the Sermon hall, the temple hall and the school classrooms inside the temple.

The supporting budget in this area is not enough. The lack of support for its activities [7] demonstrates the need for research into the development of management to excellence for the Sunday Buddhist School to be able to solve such problems.

From the background and importance of the problem mentioned above. Therefore, the researcher has to research the management model towards excellence of the Sunday Buddhist School in order for the school to be developed to keep up with the changes to the 21st century to operate in a modern system and suitable for the situation and to solve the management problems that will be beneficial to the Sunday Buddhist School.

II. RESEARCH OBJECTIVES

The objective of this research was to propose a management model for the excellence of the Sunday Buddhist School.

III. RESEARCH METHOD

Mixed methods research was designed and it was divided into three steps. The first step was to study management using questionnaires to collect from 109 teachers, and data were analyzed by descriptive statistics such as percentage, mean and standard deviation. The second step was to develop the model by interview10 key informants with an interview form. The third step was to propose the model with focus group discussion of 9 experts. Data was analyzed by content analysis. Details of each step was as follows:

Step 1 Study the management status of Sunday Buddhist School by studying the documents on the management of the Sunday Buddhist School. It was used to create a questionnaire to collect data from the research population, namely 109 teachers in Sunday Buddhism School, Mahachulalongkornrajavidyalaya University, and the entire population was used as a sample. The data were analyzed by statistical data such as percentage, mean and standard deviation.

Step 2: Develop a management model for the excellence of Sunday Buddhism School by studying documents related to the development of the management model towards excellence of the Sunday Buddhist School, and it was used to create interview points about the management of the Sunday Buddhist School of Excellence by 10 key informants in the interview and analyzed the data through content analysis.

Step 3: Propose a management model for the excellence of the Sunday Buddhist School. It is a qualitative research by organizing a focus group discussion with experts to determine the suitability of the model. The 9 experts participating in focus group discussion were selected according to specific qualifications with knowledge about

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the administration of the Sunday Buddhist School and perform data analysis with content analysis.

IV. RESULTS

A model of management towards the excellence of Buddhist Sunday School consists of 5 elements: 1) Principle, 2) Purpose, 3) Procedure system, 4) Action process which consisted of the process of operations in 7 areas and are as the following items.

1. School management at house, temple, and school (Bowon) consists of 1) administrative in the form of an educational institution committee. It consists of administrators, teachers, educational institution directors, monks, parents and qualified persons with various knowledge and experiences in order to jointly manage the school management. 2) Operate the joint management between house, temple, and school (Bowon), 3) mobilize resources for education as well as external speakers and qualified persons who are moral models for moral and moral training in schools. 4) Encourage communities and stakeholders to take part in the administration of educational institutions and organized by individuals, families, Buddhist organizations and other institutions providing education. 5) Promote the exchange of knowledge, interpersonal experience family, community, monk and local.

2. Participation in curriculum administration consists of 1) executing the curriculum. The school committee consists of administrators, teachers, educational institution committee members, monks, parents and qualified persons with various knowledge and experiences in order to join considering the curriculum designation, integration with the policies of the Sangha Association, Department of Religious Affairs, Ministry of Education and local wisdom. 3) Apply the curriculum to the teaching and learning management. 4) The curriculum should set clear objectives for the development of students to be good, smart and happy, and aims to develop learners to think and solve life problems.

3. The teacher is a person of learning, consisting of 1) the teacher plays a role in examining the coherence of the content prepared according to the problem and needs of the community and local wisdom to manage teaching and learning according to scope, content, standard, proportion of time. 3) Teachers have a direct role to play in curriculum development. It facilitates the learning of the learners. 5) Plan and evaluate learners' learning outcomes to obtain information that shows the real ability of learners, assess the learning outcome of the learners according to each learning standard, and use the assessment results for further development of learners.

4. Developing learners to be a complete and good, happy human consists of 1) learners participating in planning, organizing learning processes with parents and

teachers. Plan their own learning according to aptitude. 2) Learners participate in the learning process that is consistent with their aptitudes, interests and abilities. 3) Learners have skills and have excellent ability, creative thinking, critical thinking, reasoning, and understanding of other people's ideas. 4) The students have the quality of being good, happy, being thoughtful, solving problems, adapting to the environment, society and the world. Integrating values into life recognize the importance of all things both in nature and in a complementary society able to be self-reliant in a constantly changing world and society.

5. The teaching and learning management of the Buddhist way integrated with modern science consists of 1) organizing a learning process by organizing content and activities in accordance with the Buddhist principles and delivering demonstrations of the Dharma and ethics to teach both in the room and outside the classroom. 3) Select teaching techniques suitable for the content and purpose of the curriculum. 4) Organize the learning process and bring local wisdom to participate in teaching and learning appropriately. 5) Educational personnel development related to the development of teaching materials learning innovation and educational technology to have knowledge, use skills and care for teaching materials.

6. Learning resources are clean, shady, safe, linked with Thai wisdom, consisting of 1) study the needs of learners to design learning resources that meet their needs, 2) prepare for accident prevention the emergence of students and stakeholders effectively, 3) find learning resources that are consistent with the curriculum by studying from real places in the areas of knowledge, memory, understanding and practical application, 4) to provide learning resources that modern simply emphasize the excellence of students according to the subject matter group, and enough and able to link the network for learning, 5) provide learning resources, teaching materials, learning innovation, and educational technology that students can apply in real life.

7. Kalyanamit evaluation consists of 1) organizing recording and reporting system to provide effective feedback to support students' learning, 2) develop tools for measuring and assessing results to meet standards, 3) evaluate teachers' teaching results for each academic year to bring results to improve teaching and learning continuously and systematically, 4) there are clear criteria for performance evaluation, outstanding practitioners were praised in the three main groups, good academic performance, good conduct, and service / dedication, 5) evaluation of satisfaction. evaluation of school performance in the management of education in an honest with transparent review.

The fifth component is evaluation that is a systematic analysis of data for decision making, improvement in management, model management by stakeholders, monks,

parents, students or communities to participate as shown in Fig. 1.

Fig. 1 A Model of Management towards the Excellence of Buddhist Sunday Schools

V. DISCUSSIONS

This research found the following key points to discuss as follows.

Management Model for Excellence of Sunday Buddhist School, it is a participatory school management (Bowon) consisting of 5 elements: 1) Principle, 2) Purpose, 3) Action System, 4) Action Process, and 5) Evaluation. The results of this research are management. Sunday Buddhism School for excellence in 7 areas: (1) school management, house, temple and school (Bowon), (2) participation in curriculum administration, (3) teachers are people of learning, (4) Development of learners to be perfect, good, happy, (5) Buddhist teaching management integrated with modern science, (6) learning resources, clean, shady, safe, linked with Thai wisdom, (7) evaluation in which the results of the group discussions showed that it is appropriate and feasible to develop management to excellence in Sunday Buddhist School which will make it a management development and teaching and learning according to the school mission is to provide education to the youth and the general public and to preserve art and culture. It is a source of education and training for children and youth of the nation to have deep knowledge of Buddhism, and cultivate morality, ethics, and develop wisdom and mind to become a good and efficient Buddhist. This may be because Mahachulalongkornrajavidyalaya University has managed Sunday Buddhism School, Mahachulalongkornrajavidyalaya University has proceeded neatly and efficiently by dividing the department into a business style and adding more responsible officers. This is to make the Sunday Buddhist School a potential center with quality standards [8]. In addition, it is in line with the research of Phrabaidika Sorachai Shinwaro that the research results showed that the development of the administration of the Sunday Buddhist Center through strategic planning has set a vision to organize a Buddhist education to develop the minds of children and youth in Thailand with three missions: 1) to develop Buddhist studies for children and youth, 2) to develop youth to become a complete human being physical, social, mental and intellectual aspects, 3) aiming to produce youths to be good, smart and happy, and set four

objectives: 1) Children and youth are good people and have virtue to bring knowledge and live happily, 2) Budget management in accordance with the plan and thoroughly support welfare, 3) Personnel with expertise, Thai arts and culture, and develop themselves on a regular basis, 4) The general administration system is efficient and effective [9], with the research of Phramaha Suchart Dhammakamo, the results of the research were found that cooperative management model for the Sunday Buddhist Center. It is the administration of all 4 aspects with the participation of all sectors in thinking, practice, decision making, benefit and monitoring by integration with Buddhist principles is academic aspect. Organized teaching and learning with the principle of Trisikkha for children is to develop 4 areas of budget management with selflessness, honesty and transparency, managing people with kindness, thinking, good thinking, optimism, kindness, speech, saying good things, kindness, acrobatics, doing good to each other and general administration. The Buddhist activities [10] were also found to be in line with Urairat Thongpinit's research of Model for promoting happiness for students in Sunday Buddhist School Mahachulalongkornrajavidyalaya University, it is a format that encourages and gives students the opportunity to make choices based on their individual interests and create an atmosphere of satisfaction in learning, making students happier, with the monks promoting and supporting, in collaboration with communities that are strong, cooperative and supportive [11] and related to the monks' research of Panuwat Patiphanmethee that the research results showed allocating sufficient funds for teaching materials provide a place that is sufficient for the number of students, and organize activities to engage more students provide teaching and learning with an emphasis on new innovations and recruiting competent personnel to educate students by using Mahachulalongkornrajavidyalaya University students as mentors to students of the Sunday Buddhism Study Center [12].

VI. RECOMMENDATIONS

A. Recommendations for Practices

1. The public sector must set up a policy for all sectors, both public and private sectors that are related to Buddhism, and should support sufficient budget for their operations.

2. Ministry of Education Policy must be set for all sectors, both public and private sectors, to help develop teachers to have knowledge and understanding of Buddhism to develop a teacher for teaching Buddhism in general countries.

3. Mahachulalongkornrajavidyalaya University should support the budget for the Buddhist Sunday School sufficient for effective teaching and learning management.

4. Administrators of Sunday Buddhism School, the findings from the research on the management model for the excellence of the Sunday Buddhist School should be used in all 7 areas: 1) the administration, 2) the curriculum,

3) the teacher, 4) the learners, 5) teaching and learning, 6) learning resources, and 7) evaluation, to be a decision-making information for policy formulation for the management of the Sunday Buddhist school to be more effective.

B. Recommendations for Further Research

1. The administrators of Sunday Buddhism School should apply problems, methods and guidelines for organizational development in the administration to adapt to the environment and context within their school.

2. Administrators of Sunday Buddhism School Mahachulalongkornrajavidyalaya University in schools in various fields and should study in educational organizations, educational institutes, universities for comparison and appropriate application in their own school.

VII. BODY OF KNOWLEDGE FROM RESEARCH

From studying concepts and principles can be disassembled into a learning kit as follows:

K	= Knowledge
O	= Organization
M	=Management Toward Excellence
I	= International
N	= New Norma

Fig.2 Knowledge gained from research KOMIN MODEL

CONCLUSION

Research paper on the management model for the excellence of the Sunday Buddhist School, it is a research that combines both quantitative research and qualitative research. There are 3 research steps which consist of the first step to study the management condition using the teacher questionnaire. For Step 2, the model was developed by interviewing the main informant, and the 3rd step, propose the model with a group of expert conclusion of the research results is a model for the management of excellence in the Buddhist Sunday School. It is the development of people to become a complete human body, mind, intelligence, knowledge along with morality and ethics and culture of living able to live happily with others. Its main elements are principles, aims, systems of execution, execution process and evaluation. The Summary of the body of knowledge from this research is KOMIN MODEL, namely K = Knowledge, knowledge in management of excellence, O = Organization, an educational organization that is the management of Sunday Buddhism School, M = Management toward excellence in management towards excellence in 7 areas: 1) School management at house, temple, and school (Bowon), 2)

Participation in curriculum management, 3) teacher as a person of learning, 4) development learners to be human beings that are perfect, skillful, and happy, 5) Buddhist teaching management integrated with modern science, 6) learning resources clean, shady, safe, linked to Thai wisdom, and 7) evaluation of Kalayamit, I = International is the administration of the Sunday School of Buddhism to an international standard, and N = New Normal, a new normal, is the administration of the Sunday Buddhist School in the current situation facing COVID-19 that has changed the way of life and the way of life in the management of education and when it is repeated continuously, it becomes a familiar new normal.

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MODEL FOR THE DEVELOPMENT OF EDUCATIONAL QUALITY AND STANDARDS OF SECONDARY SCHOOLS UNDER BANGKOK UNDER THE NEW QUALITY ASSURANCE FRAMEWORK

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Abstract— The purposes of this research were 1) to study the characteristics of educational quality development and standards of secondary schools under the Bangkok Metropolitan Administration. Under the new educational quality assurance framework. 2) Create a model for quality development and educational standards of secondary schools under the Bangkok Metropolitan Administration. Under the new educational quality assurance framework and 3) evaluate the development of educational quality and standards of secondary schools under the Bangkok Metropolitan Administration Under the new educational quality assurance framework, with 4-step research Namely 1) studying new educational quality assurance characteristics 2) adjusting the quality and educational standards of secondary schools under the Bangkok Metropolitan Administration Under the new educational quality assurance framework With Delphi technique From experts, amount 21 3) Analyze the research elements and 4) Assess the feasibility of the model for quality development and educational standards of secondary schools under the new educational quality assurance framework from the secondary school administrators under Krungthep. May And 210 persons responsible for educational quality assurance. Statistics used for data analysis were percentage, quartile range, mean, standard deviation.

Research findings 1. The characteristics of the development of educational quality and standards of secondary schools under Bangkok Metropolis under the new educational quality assurance framework have 5 components which are student result, research and innovation, academic service, art and culture and Thinness and management 2. Model for development of educational quality and standards of secondary schools Ltd. Bangkok, according to a new quality assurance. Must develop the quality and education standards by focusing more on student outcomes and there is research and creation of innovation, academic services management, and quality management. 3. The model for the development of educational quality and standards of secondary schools under the Bangkok Metropolitan Administration under the new framework for educational quality assurance is possible. Yes, and suitable at a high level.

Index Terms— *Quality and Standards, Secondary school, New Quality Assurance*

I. INTRODUCTION

The present world has rapidly entered the era of globalization with the influence of progress. In telecommunication science and information technology with global networks, such as expressways, information news, including computer networks called "Internet" makes society a society of information, world information is melted into one. At the same time, all activities, whether economic, social, cultural, political, educational, and environmental are linked to each other. World In order to keep pace with the changes and progress in new science, the access to

knowledge and the exchange of information occurs quickly. Prepare to face the challenges of global trends, with the key factors to face change and challenges, such as the quality of people, workforce, and national wisdom, are key factors in driving the country towards development and its potential in International competition for this reason has made many countries increasingly focus on education as a tool for effective human development, improving the quality of education, developing skills, thinking processes and processes for solving various problems. Quality will be a key force in the country's

sustainable development. Society in which people have quality, have strong knowledge, can compete well in the world because modern society competes with quality of people. Human resources therefore becoming something valuable it is an important factor that make society able to compete with other societies and can create progress through new technologies. Accessing knowledge and being able to get information about it quickly to stay informed of current world situations and truths (Vesarnatch, 2011).

Accessing and linking information is a problem and the cause of its spread. Such rapidity has created a common or international trend that connects all over the world, major currents affecting the changing of life, society, and environment around the world, which Thai society has been affected by various changing conditions. In today's Thai society context, it has a great impact on higher education, but Thai higher education has not been able to adapt to the rapid changes that have greatly affected the quality problems of Higher Education, together with research results on current conditions, problems and trends, the context of changes in Thai society under the future globalization. 10-20 years, it was found that Thai education may face problems in 6 areas: 1) social aspect 2) economic aspect and nature of production and service 3) environment and energy 4) science, technology and innovation 4) politics Government and 6) population (Sirirangsri, 2012) As a result, the education system cannot be an effective mechanism for national development and its potential to compete with other countries. By the free economic flows, capitalism, the world economy has become an economic system. Likewise, former socialist countries such as China, Vietnam, and Eastern Europe have increasingly focused on free trade policy; globalization has widened global markets, moving inputs of production and multinational investment. Around the world, there is a fierce commercial competition around the world. The issue of quality education is still a hot topic of debate. Therefore, the goal of the second decade of education reform (2009-2018) focuses on development. quality and standards of education, increasing educational and learning opportunities, and promoting participation of all parts for Thai people to learn throughout their lives with quality, regardless of quality and educational standards are important All parties involved in the provision of education must realize and finally implement the quality assurance system, which is therefore an important mechanism to effectively develop the quality and standard of education of Thai people.

In the past, secondary schools under Bangkok in Thailand. Has played an important role in human resource development, has been the main institution that has always played a role in guiding society. It is the principle that people, and organizations can rely on when problems must be solved with academics and wisdom, hope of society and existing missions, causing higher education institutions to make every effort to perform their duties fully and maintain their integrity. Believe in the faith of society to remain forever the most important role of secondary schools under Bangkok It can be said that it is a "change agent" or a society that drives social change that must follow the roles and responsibilities of a secondary school under Bangkok to lead the country to a society that is Finally (Office of the Higher Education Commission, 2008), the aforementioned education management is therefore very aware of the quality and standard of education, as evidenced by the various criteria and measures

from various departments. It is the Ministry of Education that organizes teaching and learning to supervise the education management to be carried out with quality, including the quality control of education by assessing the internal assessment of the secondary schools under Bangkok. Therefore, there is a strong awareness of educational quality and standards, which can be seen from the various criteria and measures from various departments to supervise the education management to be carried out in a timely manner. Quality In addition, education quality is controlled by both internal assessments of secondary schools under Bangkok and external assessments.

In addition, the analysis of current conditions, problems, and obstacles of the development of educational quality and standards of secondary schools. Bangkok Metropolitan Administration for implementing such policies and in keeping with the national direction of social development, the urgent achievement of educational reforms in the second decade (2017) 2009-2018) Tertiary Education Quality Development Strategies The researchers therefore have ideas for developing the educational quality and standards of secondary schools under the new framework for quality assurance in education as a guideline for quality development and Education standards of secondary schools effectively and educational standards to keep pace with globalization and international standards The developing educational quality assurance system has the idea to promote and propose guidelines for the development of educational quality by implementing 3 steps as follows:

1. Quality control refers to the quality of education of the school according to as well as the relevant departments to serve as goals and as a development tool, the general practice of the standard is determined by a group of experts or experienced people.

2. Quality inspection is an examination and gives priority to

The provision of education that meets the required educational quality standards and procedures to ensure the quality of education.

3. Quality Assessment is the assessment of the quality of the school by personnel within the school or by the institution responsible for school supervision concepts based on educational quality assurance principles.

The concept of education is not familiar with the business because education is not monetary profit but the expect result is quality in various aspects of people. It is a process of producing people, with teachers and administrators as internal personnel must cooperate to develop good quality of children and continue to operate without stopping. Administrators and teachers in schools jointly set the goals to be explicit on how they want to develop their children to qualify. There is a PDCA concept that is used in educational assurance. P refers to plan, D refers to do, C refers to check, and A refers to action which means an adaptation and solving to reach the set purposes and continuously improve the quality by participating in group.

This research is useful to educational agencies such as high school administrators under Bangkok Metropolitan Administration, teachers, students, and the public. This research focuses on applying knowledge to benefit the development of educational quality and standards. Of secondary schools is like transferring the developed knowledge media to personnel to learn for self-development, human development, and job development in accordance with the current social context and to develop trends of the institution for further betterment for

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example, 1. External situations that is highly competitive and alert and 2. Internal policies need to strengthen weaknesses to develop all aspects to meet the learners. And social needs.

II. RESEARCH OBJECTIVES

Research on the development of educational quality and standards of secondary schools under Bangkok under the framework of the new educational quality assurance has the following research objectives.

1) To study the quality development characteristics and educational standards of secondary schools under Bangkok under the new educational quality assurance framework.

2) Establish a model for developing the educational quality and standards of secondary schools. Under the new education quality assurance framework

3) Assess the development of educational quality and standards of secondary schools under Bangkok under the new educational quality assurance framework.

III. RESEARCH METHOD

Research on the development of educational quality and standards of secondary schools under Bangkok under the framework of the new educational quality assurance was a mixed research consisting of both quantitative research with methods for collecting data by using questionnaires and the qualitative research was collected using in-depth interviews with a total of 21 key informants. With a specific selection method, who are experts with knowledge of education and the quality and standard of education of secondary schools under Bangkok They have direct experience in educational quality assurance, with a total of 210 sample subjects using the ready-made open grid method According to the sample sizing criterion of (Krejcie & Morgan, 1970) at an acceptable tolerance level of 0.5. The statistics used in the qualitative data analysis were median and interquartile range. Statistics used in quantitative data analysis it consists of mean (Mean) and standard deviation (S.D.). The researcher developed the research method, divided into 3 phases.

Phase 1 studied the educational quality and standards of secondary schools under the framework of the new educational quality assurance. Synthesize doctrines, concepts, theories, and related research. From the study visit of the educational quality assurance management of secondary schools and by interviewing 21 experts with direct experience in educational quality assurance to collect the expert opinion data.

Phase 2: Establishment of a Developmental Development and Composition Validation by using the content, information related to the quality assurance of new studies and elements obtained from expert interviews, to create a 5-answer, closed-ended questionnaire. Offer a teacher counselor to check the correctness of the language. After that, the questionnaire was sent back to the same 21 experts, allowing the experts to comment on the appropriate level of rating for each question. When modified according to the advice of experts Therefore inspect the quality of the tools by assessing the validity according to the content, analyzing the Item Objective Congruence Index (IOC) value of the questionnaire individually, then selecting the questions with an IOC value greater than 0.50.

Phase 3 Assessment assesses the feasibility and feasibility of educational quality improvement guidelines and standards developed by introducing questionnaires on the quality development and educational standards of secondary schools under

the quality assurance framework. A new kind of education the revised version, then go try out) with a population like a total of 30 samples to analyze the confidence coefficient. (Reliability) of the tool, then a complete questionnaire is published the data were collected from a sample of 210 administrators and participants in the quality assurance of the study, in terms of suitability and usefulness for use. After that, questionnaires were collected from the sample. The results were analyzed for the mean and standard deviation (SD).

IV. TOOLS USED FOR DATA COLLECTION

Qualitative data collection tool

Including in-depth interview documentation Used in interviews or conversations for supporting information it is a comment on the suitability and consistency of the development of educational quality and standards of secondary schools under the new framework for quality assurance.

Tools used to collect quantitative data

Questionnaires were questionnaires to inquire about the level of opinions on the construction of a model for the quality development and standard of education of secondary schools under the new framework for quality assurance. In terms of suitability and usefulness in their use Divided into 3 parts as follows

Part 1 was a general information questionnaire on the personal factors of the respondents. There is a check list (Check List) classified by personal factors. (General information)

Part 2 is a questionnaire on the development of the quality and standard of education of secondary schools under the new framework for quality assurance, inquiring about the suitability and the usefulness of their implementation. The nature of the questionnaire is a 5-level rating scale.

Part 3 is other recommendations for improving educational quality and standards of secondary schools within the framework of the new educational quality assurance. It is an open-ended questionnaire to write free responses.

V. RESEARCH RESULTS

The development of educational quality and standards of secondary schools under the new education quality assurance framework. The results can be summarized as follows.

Objective 1 the research results were found that from the analysis of opinions of experts, high school administrators under the Bangkok Metropolitan Administration and those responsible for the education quality assurance, the researcher was able to gain the characteristics of improving the quality and standard of education at the level schools. Secondary education under Bangkok under the framework of the new educational quality assurance, which contains all 5 elements of development and 30 development methods, which correspond to Punthai (2009) found that to change the behavior of the leaders, the need to create a change in the working culture in the organization with good practices according to the principles of good governance through the organizational culture elements and the use of internal communication. Which is the factor that leads to the real results of the organization?

Objective 2 the results of the research were found that the elements of building a pattern, developing quality and educational standards of secondary schools. Under Bangkok Under the new framework for educational quality assurance there are 5 components: 1) student outcomes 2) research and innovation 3)

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academic service 4) arts and culture and Thai culture 5) management with details as follows.

Component 1: Student outcomes consisted of 6 indicators: 1) A policy for quality development and standards for learners with image or focus on the identity of secondary schools under the Bangkok Metropolitan Administration. And innovation to support the performance of educational quality and standard development. 3) Encourage learners to comply with the rules. Regulation and adherence to morality, ethics, maintain and inherit a good culture Such as public relations, dissemination of fame, recognition, praise, and prizes. 5) Provide a system for monitoring learning and student behavior on a regular and continuous basis that is ready for immediate correction and assistance. Completion of the educational quality and standard development plan

Component 2 Research and innovation consists of 6 indicators: 1) a research and innovation policy that is consistent with economic conditions. 2) Develop a research and innovation strategic plan in line with the policy of the secondary school. Under Bangkok as well as giving importance to the challenges and changes of society and the world; 3) support the budget for research and innovation development; 4) Establish capacity and manpower development of support personnel performing research and innovation work; 5) establish a system for monitoring progress and evaluating the success of the research and innovation strategic plan. 6) Establish a systematic search for funding sources for research and innovation from outside.

Component 3: Academic Service consists of 5 indicators: 1) there is a policy on academic service that is clearly in line with the environment and needs of the community, society, and the country, such as setting directions and goals for academic service. Academic or equivalent units have an academic service strategy plan that is consistent with the plans of secondary schools. 3) Secondary schools. Under Bangkok Provide capacity and manpower development of academic service workers. 4) Establish a system to monitor progress and assess the success of the academic service plan covering all major departments. Collaboration with government agencies and private sectors to promote social learning Community and local.

Component 4 Arts, Culture and Thainess consists of 5 indicators: 1) there is a policy on arts, culture and Thai that is clearly consistent with the environment and needs of the community, society, and country. Art, culture, and Thai traditions of secondary schools as well as giving importance to the challenges and changes of society and the world; 3) the budget for the development of arts, culture and Thai as planned adequately; 4) to develop the capacity and manpower of art practitioners. Thai culture and identity 5) Encourage teachers and personnel to study and research. To preserve, create identity standards, and disseminate arts and culture.

Component 5: Management consists of 5 indicators: 1) Short-term Operator Development Policy. 2) Promote and support secondary schools. 3) Arrange to transfer quality assurance policies and strategies for secondary schools. Under Bangkok to lead a comprehensive practice of all parties involved in all hierarchies. 4) Establish a system for monitoring and evaluating the quality assurance progress of secondary schools covering all departments. 5) Establish a dedicated quality assurance supervisory management and agency.

To create a model for the development of educational quality and standards of secondary schools under the new educational quality assurance framework.

Objective 3 the research results were as follows: The consistency of the development of educational quality and standards of secondary schools under the new framework for the quality assurance of education.

The experts obtained concluded that all 5 components were consistent, and feasibility of their implementation was at a higher level. In this order, students' results (3.74), research and innovation (3.89), academic services (3.74), arts and culture and Thai (3.68) and management (3.77).

Knowledge of research

Key features of the management new quality assurance

To achieve the objectives within the framework of the National Qualifications Framework, that is, focus on student results. And must be consistent with the institutional context that must consider the unity of policy and diverse in practice with the distribution of power from Central to the education management section Build the participation of communities, society, and establishments. In policy formulation, course administration, production process and student development Including setting graduate standards and coordination with network partners in the private sector, government, and local sectors, and, importantly, should design a flexible and diverse education management system with a transfer and comparison system. Work experience of individuals for admission to education establishing a mechanism for students to have volunteer activities for society Evangelizing student's morality and encouraging teachers to produce research in the classroom to develop students and manage research-based teaching and learning. Resources are mobilized from both the public and private sectors to provide education in accordance with the tertiary qualification standard framework. With due regard for a thorough and fair coordination there must be a continuous teacher development system for each course. To keep up with Change of technology Modern science and social situations.

Quality assurance in education has 3 important.

1. Allow the public to receive reliable quality education Information build confidence and make decisions about quality services.

2. Preclude an ineffectual quality education. This is a consumer's protecting and create an equality of an opportunity to receive quality educational services thoroughly.

3. Befall the responsible for person in education to focus on educational management to quality and standards seriously, which expect the results in the education to have the power to continuously develop the quality of the people. Therefore, the educational quality assurance is the management and operation of normal activities of the school to continuously improve the quality of the students which can be create confidence for education administrators. Moreover, it also prevents the provision of ineffectively quality education and creates education as a powerful mechanism for the development of higher quality populations. An important principle of educational quality assurance in primary educational institutions is an educational quality assurance that can cover the mass activities and academic missions and administration management that has an advance planning and a systematic relationship. To create a reasonable assurance that the learners have got the knowledge, ability, and desired characteristics in accordance with the educational standards.

The educational quality assurance within the school will focus on the standards of education for learners which are all 7 standards as follows.

Standard 1: Learners have morals, ethics and desirable values, discipline, responsibility. An action that follows the rules and basic principles of each religion. Be honest, benevolent, generous and sacrifice for the public (use both personal and public property and property including natural resources that are economical and worthwhile)

Standard 2: Learners can think critically. Synthetic thinking, judgmental, creative, thoughtful, and visionary. Be able to classify, compare data and get the main idea, assess the reliability of data, knowing of the advantages, disadvantages, correctness, identifying reasons, finding answers, choosing methods, and having an esprit to solve problems and make decisions with peace and accuracy. Have initiative, imagination, be able to predict and decide the goals.

Standard 3: Students have the knowledge and skills required by the curriculum. Have an achievement in the experience group / subject group / major subject not less than the minimum standard criteria (mathematics, science, Thai, English, social sciences, computers, and specialized subjects for vocational education) and the ability to use language as a tool to communicate.

Standard 4: Students are skilled in seeking knowledge for themselves. Keen to learn and develop one continuously. Enthusiastic Interested in learning from various sources, knowing how to ask questions to find reasons. Desire to read, knowing how to use the library for seeking knowledge, sources, and various media, both inside and outside the school. Be able to summarize the points from learning and experienced correctly by one.

Standard 5: Students skilled in work, desire to work, work with others effectively and have a good attitude towards honest careers. Be able to work orderly and effectively, diligent, patient, thorough in work, improving their work properly, work happily, be proud of their work and be able to work as a team. Helping others not taking advantage of cooperation. Accept the opinions and abilities of others. Be responsible for the group work. Have a good attitude towards honest careers.

Standard 6: Having good behavior, good physical and mental health, having both height and weight according to standard criteria. Having physical fitness as standard, cheerful, build a good relationship with teachers, friends, and the public. Knowing of health and prevent oneself from becoming in an accident, having knowledge, and understanding about the dangers of drugs and intoxication. Do not do drugs and be free from bad influence.

Standard 7: Having an aesthetic and artistic character including music and sport, appreciation and participation in arts, music, and sports.

The development of the quality assurance system in the school for learners bringing the results to plan for improvement within the school. To reach the needs. Therefore, educational institutions must be aware of the need to prepare a report. And the use of information to benefit seriously for accuracy and keep it current. According to the process of developing the educational quality assurance system consists of systematic study, stem analysis, system design, system implementation, monitoring and evaluation of the entire system for the most benefit of students.

VI. DISCUSSION OF RESEARCH FINDINGS

1. Development of educational quality and standards of secondary schools under the new framework for educational quality assurance which consists of 5 components: the results of the learners Research and innovation Academic Service Art, culture and Thai and management Overall, it is at a high level.

With indicators having a descending average new educational quality assurance it is an education organization aimed at quality students. The quality assurance of education is an important measure to ensure the quality of the learners. This is because the development of the educational quality and standards of secondary schools under the newly developed educational quality assurance framework. Easy to put into practice, clear, easy to understand objectives cover operations. Quality improvement practice process uses the PDCA cycle that can be used effectively. With an emphasis on social responsibility and accountability and consistent with the results of each higher education standard the course performance is consistent with the tertiary curriculum standards. Resulted students according to DOE (Desired Outcomes of Education) and other standards set by the Ministry of Education standards. This is consistent with the research results of (Phiphatnarathorn and Chirotepinyo, 2018). It was found that: 1. Elements of management towards excellence in secondary schools. There are four components in Bangkok, consisting of personnel management, general management. Academic Management and budget management 2. The level of administration leads to excellence of private schools in Bangkok. Overall and each item Very good.

2. The development model of educational quality and standard of secondary schools under the new educational quality assurance framework was found to be very good. It is suitable for management to improve the educational quality and standards of secondary schools and can raise the quality and standards of educational institutions. This is because the model is developed from the real problem of each secondary school. Can solve the problem and meet the needs of education quality assurance in line with the principles where problems arise, where to solve them. The management process takes place through a process of participation from many parts, whether from within the organization. Especially the cooperation of the institutional personnel and outside the organization is the support from the agency Due to the high school level administrators Who oversees educational quality assurance; is involved in planning quality development strategies or quality assurance at secondary schools. Considering the quality that is given to learners and key stakeholders. Together with the transmission of quality assurance policies and strategies of secondary schools to all departments and personnel at all levels, comprehensively and across all secondary schools In line with research, Newton (Newton) studied research on Impact Assessment in Secondary School External Quality Audits in the UK from 1993 to 1998 with the aim of assessing the impact of using a form of external audit. Quality assessment of teaching and learning management and quality monitoring of secondary schools. The results of the study showed that using quantitative data (Quantitative) and qualitative (qualitative) obtained from measurement, practice, or implementation by an external organization. Such as inspection reports and assessments of the Scottish Higher Education Council (SHEFC) and the Higher Education Quality Council (HEQC) and the internal assessment audit. By the committee according to perception the impact of the quality system is as follows: 1) Objectives of the quality system and the methods used in the audit. And the assessment pointed out that the educational quality assurance system needs to be audited and assessed both internally and externally, audits and assessments of various higher education institutions are possible. (Accountability) 2) Quality improvement for personnel is so broad. Therefore, independent improvement cannot be separated from the

quality assurance system. 3) Quality improvement for students. It is more important than personnel improvement and development. As it is a product of secondary schools and 4), quality assurance operations should be expanded or expanded. To meet the needs of more and more agencies, Thailand has developed a quality assurance system within the tertiary level. By agencies from the agency Quality assurance operations aim to ensure the confidence builds on students, students in making admission decisions, on the other hand, can be used as a means of recruiting individuals for further admission. It also encourages development in all directions of the secondary school, such as teaching curriculum, research, personnel, and teaching support systems, etc. Chirotphinyo, 2017) found that the relationship between participatory management and the governance of school administrators. They are related components in the school administration process. In the case of linking with other countries it is intended to lead to student exchange. And the credit transfer between secondary schools to create new experiences and knowledge for students both academic and culture of each country. In addition, the quality assurance system also encourages and pays attention to information technology systems Infrastructure and others, SWOT analysis.

3. Assessing the development of educational quality and standards of secondary schools under the new framework for educational quality assurance, it was found that the model of quality development and educational standards of secondary schools under the new educational quality assurance framework. That has been evaluated this indicates that the development of the educational quality and standards of secondary schools under the new framework for the five components of the new quality assurance. This may be due to the model that has been created from the real problem situation of the target group and is correct and consistent with the Ministry of Education. In particular, the development model has been confirmed by experts. And it was caused by cooperation from all related sectors such as administrators, teachers, and regulators, thus resulting in appropriate and effective forms. To be a way to further improve the quality of education Consistent with the concept of educational quality assessment which identifies guidelines for assessing the quality of education throughout the organization, namely into the process and productivity especially the cooperation of all stakeholders. (Stakeholder) will become the greatest power of all operations. Which corresponds to (Nichakonwong, 2015) However, cooperation in teaching and learning activities should be extended. Between secondary schools Government agencies and private sectors, both within and outside the country to give students opportunities to learn attitude, perspective and various and different experiences is to receive information from outside and course administrators should conduct follow-up reports.

The quality assurance generates the benefits as follow.

- It generates the development of institution quality continually to the international standard.

- Usability of resources for higher education quality development.

- The institution management to be effective will lead the student to be successful at all levels.

- Producing research and academic service to be the most beneficial and be identical to the social and national requirements.

- The students, parents, employers, and the public have the data for planning.

- The institution, educational service institute, and government have the accuracy data and being a system to impose the policy,

planning and managing the education that student has the high score of achievement in each subject and receive a standard.

-Students know in advance what they will receive from the institution and achieve as they have acquired.

-Parent, community, teacher, local educational institute participate in imposing the quality that is combined with international standard, national standard and local standard.

- The director is on duty planning to control the quality by binding with the teacher, school committee, parent, and community and to improve the instruction quality to generate the achievement of the student as standard, examining and accepting the plan of instruction management.

-Instructor gains an improvement and inspiration to plan the instruction of student center, emphasize performance procedure for leading them to the standard achievement of learning quality accurately, students can learn completely, director and school committee follow up and investigate in an instruction that aid the quality systematic,

-There is measurement and evaluation as the real state that aims to achieve the quality standard. In addition, there is the working document that directors and teachers examine the studies and note the results to bring them for developing and reporting to the public that how good the instruction achieves the objective of learning quality which is imposed before.

The standard of institution management as a national standard Educational quality standard As the Ministry of Education announcement of basic education standard suggests using the basic educational standard for internal quality assurance; 15 standards composed of 4 fields 15 standards, namely. Student quality standard: for 6 standards.

The benefit that affects education as a school standard; composed of 3 principles.

1. Learners have a potential to be global citizen, be good at academic excellence, bilingual communication, creative thinking and producing and responsible for global society.

2. Promoting the level of instruction to be as equal as international standard by impose the additional subjects which is universal.

3. Promoting the level of administration by the quality which is international standard.

Suggestions for the next research

From the research results the researcher has the following recommendations.

1. Suggestions from research

1. Educational quality assurance must consist of strategic mechanisms capable of controlling and monitoring, evaluating, and improving the teaching and learning process in relation to learning outcomes in an appropriate relationship.

2. Suggestions for the next research

1. The state of problems in developing the educational quality and standards of secondary schools to know what problems and needs are currently important.

2. A study comparing the development of educational quality and standards among secondary schools with effective administration to find ways to develop further.

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The Development Model for School Administrators the office of the Basic Education Commission in Thailand 4.0

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Abstract— This research aimed to 1) to study the elements of the development model for school administrators of the Office of the Basic Education Commission in Thailand 4.0 2) to develop the model of the school administrators of the Office of the Basic Education Commission in Thailand. Land 4.0 and 3) assess the appropriateness of the development of the model for the administrators of the Office of the Basic Education Commission in Thailand 4.0 using a combined approach. There are 4 steps of research: 1) study documents and related research. With the administration of educational institutions of the Office of the Basic Education Commission in Thailand 4.02) Develop a model for administrators of school administrators of the Office of the Basic Education Commission in Thailand 4.0 with Delphi techniques from management experts to excellence 19 persons 3) analyzed the elements of the development pattern of the administrators of the Office of the Basic Education Commission in Thailand 4.0 by analyzing the elements; The statistics used for data analysis were percentage, range, quartile, mean, standard deviation and elemental analysis.

Research findings

1.The study of the administrators of the Office of the Basic Education Commission in Thailand 4.0 found that it consisted of 5 important components: Characteristics of self-development of modern leadership, modern management development skills, roles, duties, morality, ethics and competencies of school administrators of the Office of the Basic Education Commission in Thailand 4.0 2.Development of the model for school administrators of the Office of the Basic Education Commission in Thailand 4.0 found that there are 5 main components: leadership, vision, morality, ethics, knowledge, competence and information and technology. 3. The level of suitability of the development of the model for the school administrators of the Office of the Basic Education Commission in Thailand 4.0 overall and the aspects are very good.

Index Terms— School Administrators, Office of the Basic Education Commission, Model Development, Thailand 4.0

I. INTRODUCTION

. Nowadays, Thai society has fully entered the digital world, making socio-economic activities run rapidly, with high competition, increasing access to massive amounts of information online through the online world, resulting in a change in child characteristics, and the government announced Thai policies. Land 4.0 aims for Thailand to step out of the middle-income trap and move towards a high-income country by employing economic, social innovation and high-quality human resource development to drive the country. Upgrading the quality of human resources in the country to prepare manpower to be a key mechanism for the development of Thai economy and society to the regional and international economic stage. 4.0 "by the National Institute for Child and Family Development, Mahidol University in collaboration with the Office of Health Promotion Foundation (Thai Health Promotion Foundation) in exchange for education management with creative integration to meet the needs of the developing society. Will step into the digital age for strategic target areas that the Thai education system must develop to support the Thailand policy 4.0 of the government from a joint research study between August and the World Bank, based on the experience

of international education reform, is the development of quality midsize schools located in all sub-districts of Thailand. The center has good quality and is the center of the area and works in connection with the mechanism of the Provincial Education Office already in operation of the Ministry of Education. Those schools will also be able to develop the workforce in that district and then expand the development to smaller neighboring schools and will be able to cover the quality development of more than 50% of the nation's children and youth entering the labor market in the future. It is a pleasure that this idea has been implemented in the Ministry of Education, namely the magnetic school that OBEC has begun to operate.

The 20-Year National Strategy (2017-2036) , which is due to the link between the National Strategy and the 12th National Development Plan, in the state of the problem that is the source of the concept of the National Strategy, namely, the development of the country is not continually There are various development plans and strategic plans, allocation and use of modular budgets, the determination of the future of nations is largely done by the government sector and developed countries will have a national strategy through the 20-year National Strategy Framework. (2017 –2036): "The country is still

prosperous, still standing as a developed country. With the development according to the philosophy of sufficiency economy "leads to the development of happiness for Thai people and responds to the achievement of national interests in improving the quality of life Create high income and create happiness for Thai people. Society is stable, equitable and fair, the country can compete in the economy. Thailand 4.0 is committed to transform the economy into a "Value – Based Economy" or "Innovation-driven" economy, which is still stuck in a "do more and less" economic model. Are "Doing very little" The most important drive for change in at least three dimensions is the shift from commodity production to commercial commodity. Innovation changes from driving the country with the industrial sector towards technology-driven creativity and innovation and shifted from an emphasis on manufacturing to more services.

Education 4.0 (Education 4.0) is teaching that teaches students the ability to creatively integrate their knowledge everywhere in the world to develop innovations to meet the needs of society. Far away in many dimensions, for example, never taught students to think by themselves Most of them still teach to do the same problem. Another story is that learners are not familiar with society, most of them spend their time in the online world with games, shopping, chatting, Facebook Line, and Instagram are mostly illusory societies where technology is not wrong, but there are two areas of coin, so is technology used in what ways are it useful? It is difficult and challenging for those who must teach in this era because the teaching and learning in the age 4.0 had to let the students use technology in their own learning. Let them dare to think and dare to be wrong, but they all still must be within the framework that society wants or can accept, not always being smart, always able to think new and be creative, but not acceptable to society. Using technology that is cost-effective.

Learning in Thailand 4.0 era, teachers cannot be teachers alone. But students must be self-taught by teachers to design learning, train themselves to be a coach, and facilitate (Facilitator) in learning, and must design the learning process that will enable students to develop skills. In the pursuit of self-knowledge, the key skills that children and youth in Thailand 4.0 should have are learning and innovation skills or 3R and 4C with 3R components: reading, writing and mathematics. (Arithmetic) and 4C is analytical thinking (Critical Thinking, Communication, Collaboration and Creativity, including life and professional skills and information, media, and technology skills. And new educational management, etc.

School administrators must be developed to have quality and standards suitable for high professionalism, have a professional license as required by law, as well as have a professional organization, educational institution administrators and educational administrators as well. Today's executives will need to develop conceptual skills to be able to determine the direction of development of their own departments or educational institutions more accurately and in a direction (do the right things). As a result of those executives being more decentralized, more important decisions will have to play a role as a policy developer rather than a policy leader. And with the trend of rapid social change, the need for managers with these skills higher than ever before. Human skills skills) are also

important and necessary because in the era of decentralized management, people in the organization will have higher quality and standards this requires management to play a role in negotiating with an educational interest group (interest group). Groups) in various schools in society and communities Therefore, the need for leadership (leadership) is higher than in command or control, as in the past. About principles, concepts and theories based on scientific approaches to gain technical skills skills) are still essential as well, because they reflect a certain degree of managerial professionalism and are the ones that will enable new ideas. That can be appropriately applied to the realities of the agency or local area (Wirot, 2013)

The role of school administrators without borders, despite the national movement in education administration of Thailand 4.0 era since December 2010, with a meeting of high school administrators by the Office of the Commission. Basic education includes academic conferences, written articles on the skills of the Thailand 4.0 Era, due to the lack of advanced skilled workforce, which is a global trend, but the movement in such matters is uninterrupted by everyone. The lack of host organization, which is the key to coordinating and taking this matter seriously, poses a great challenge for school administrators in the era of no boundaries, being inactive, doing the same things as they used to wait for the policy. From above but unilaterally while the political and government instability All damage to the country's human capital development results in the nation's lack of competitiveness and interests. When the border was officially opened in 2015, today's start might be a little slow. But it is not too late to act, and school administrators at all levels, as the organization's authority, must decide on the implementation of the strategic plans and missions of the schools for which they are responsible, establishing quality for the future based on: Skills of Thailand Era 4.0 and monitor and monitor the implementation of serious actions (Rossukhon, 2012)

In conclusion, the changes in various fields the world in the era of Thailand 4.0 has inevitably stepped into the school fence, the role of the school administrator as the leader of the organization, which is the most important and influential engine on the quality of education. Therefore, it is very important to develop the development model for school administrators of the Office of the Basic Education Commission in Thailand 4.0 if the school administrators do not develop themselves to keep up with the global changes in the era of Thailand 4.0. Or unable to adapt to the era of rapid change, may cause problems in organizational management and affect the quality of education. Foundation in Thailand 4.0 to be used as a guideline for the development of schools to be more efficient and effective.

II. RESEARCH OBJECTIVES

Research on the development of educational quality and standards of secondary schools under Bangkok under the framework of the new educational quality assurance has the following research objectives.

1) To study the quality development characteristics and educational standards of secondary schools under Bangkok under the new educational quality assurance framework.

2) Establish a model for developing the educational quality and standards of secondary schools. Under the new education quality assurance framework.

3) Assess the development of educational quality and standards of secondary schools under Bangkok under the new educational quality assurance framework.

III. RESEARCH METHOD

Step 1: Study the concept, document and research work related to the development model for school administrators of the Office of the Basic Education Commission in Thailand 4.0.

Step 2: Create a model for the development of school administrators of the Office of the Basic Education Commission in Thailand 4.0 using the Delphi Technique process to find consistency from expert opinions. The number of experts is 30 people who have knowledge and ability in basic education management in Thailand 4.0 era.

Step 3: Analyze the key components of the development model for the school administrators of the Office of the Basic Education Commission in Thailand 4.0 with Factor Analysis.

Step 4 Evaluation (Evaluation) when the 3 processes are completed. In the process, the researcher used the results as a rating questionnaire (Rating scale questionnaire) for 101. administrators under the Primary Educational Service Area Office in Chonburi Province to vote for another opinion. With more complete
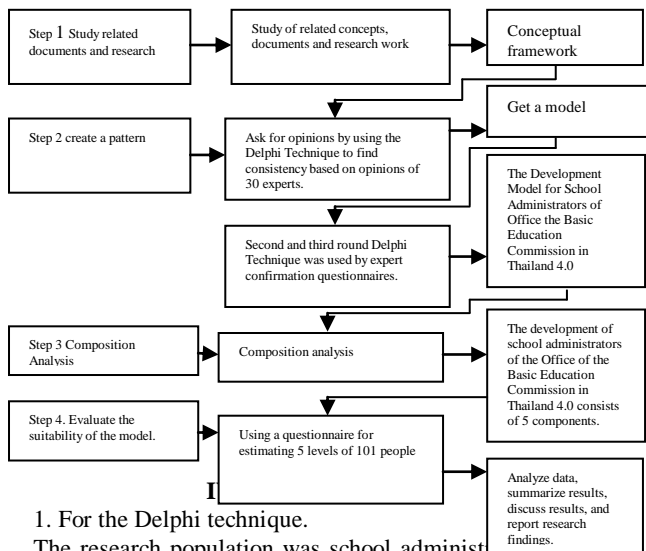
1. For the Delphi technique.

The research population was school administrators under the Office of the Basic Education Commission, experts in educational administration, education administrators, and educational administration scholars with achievements in school administration in the Thai era. Land 4.0 experts in school administration, education administrators, academics in education administration and basic school administrators use a specific selection method of 30 people. Based on qualifications Experience in school administration and has a strong reputation in education.

2. For inquiries using population questionnaires for inquiry using questionnaires for basic education institution administrators under the Primary Education Service Area Office in Chonburi Province, total 220 schools.

The sample group for the questionnaire was school administrators under the Primary Education Service Area Office in Chonburi Province by using Crazy and Morgan's open grid method (Krejcie & Morgan, 1970). 101 schools 1 student per school by sampling.

Construction and development of research tools

Research instruments

1. The interview form is an open-ended, unstructured question about basic education institution administrators in Thailand 4.0 era, divided into 3 parts:

Part 1 General information of the interviewee

Part 2 Composition of basic education institution administrators in the era of Thailand 4.0

Part 3 Other Suggestions

2. Opinion questionnaire, evaluation forms 5 levels (Rating Scale) on the format of basic school administrators in the era of Thailand 4.0 divided into 2 parts:

Part 1 General information of respondents

Part 2 Format for basic education institution administrators in Thailand 4.0 era obtained from interviews with 150 experts.

Part 3 Other Suggestions

Tool construction process

Part 1 is an open-ended, unstructured question. On the format of basic school administrators in the era of Thailand 4.0

1. Study concepts and theories about basic educational institution administration. Concepts and theories of educational institution administrators in the era of Thailand 4.0; concepts and theories of educational management in the century 21 and related research to be used as information in determining the scope and content of the interview.

2. Analyze the variables and points to be studied to formulate questions in the interview.

3. Create an unstructured interview form from the conclusions obtained from the analysis of concepts, theories, and related research for interviewing administrators of educational institutions under the Primary Education Service Area Office in Chonburi Province. Academic Qualifications in Educational Administration

4. Bring the completed interview form to the advisor for examination.

5. Revise the interview form according to the advice of the advisor.

6. Use the revised interview form to interview 30 experts for Round 1.

7. Bring the interview form for each expert to confirm the accuracy from the second interview.

8. Using data from interviews of 30 experts in the second round to use content analysis (Content Analysis) and asked experts to answer the 3rd round of questions by doing a questionnaire to estimate 5 levels (Rating Scale) using the Liket estimation scale according to the following criteria:

A score of 5 means that opinion is at the highest level.

Weight score of 4 means there is a high level of opinion.

Weight score of 3 means there was a moderate level of opinion.

Weight score of 2 means there is little opinion.

A score of 1 means that opinion is the least level.

To analyze the median (Medien), the mode and to find the range between quartiles (Interquatile Range) to create a new

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Questionnaire to inquire about 101 school administrators under the Primary Education Service Area Office in Chonburi Province.

Part 2 Comment Questionnaire 5-level evaluation form (Rating Scale)

1. Bring the completed questionnaire in item 8 for the advisor to check for accuracy and initial suitability.

2. Revise the questionnaire according to the advice of the advisor and bring it to 5 experts to check for the content validity test and find the conformity index by item or IOC (Index of Item Objective). Congruence) and consider selecting questions with an IOC value More than 0.50 to be a questionnaire for income of 100 items.

3. Revise the questionnaire according to the recommendation of the expert and the recommendation of the advisor.

4. Bring the revised questionnaire to tryout with the school administrators. Under the primary education area office in Rayong, Chanthaburi and Tart provinces, which were similar and not a sample group used in this research, 30 people to analyze the reliability (Reliability) using the Alpha-Coefficient.) By specifying the confidence criteria for the whole questionnaire must be at a value of 0.60 or more (Boonchom, 2002)

5. Tryout questionnaires were used to collect data from schools under the Primary Educational Service Area Office in Chonburi Province by sampling of 101 schools, 1 student per school, and analyzed data using a package program.

V. Data collection

1. Procedures for collecting information from the interview.

1.1 Submit a letter requesting a courtesy to collect information before proceeding to the interview.

1.2 The researcher used the interview method by traveling to interview by himself.

1.3 Send a thank you letter Interview specialists who provide information on educational institution management.

2. Procedures for collecting data from questionnaires.

2.1 Investigators follow up and collect data for each school setting.

2.2 Introduce self-introduction books with questionnaires asking for help in answering the survey of 101 schools administrators. One school student, each school researcher collects questionnaires by themselves, some mailed and in addition, some online storage. The researcher took the completed questionnaire to create a form on Google. drive, and then send a link to request cooperation from the sample group to fill in the information online for Ready to request a convenient date to receive the questionnaire.

2.3 The researcher collected questionnaires at the appointed time, checked the completeness of the questionnaires and sent a thank you note, which the researcher received the questionnaire back from the sample 100%

Data analysis

1. Analysis of information from the interview.

1.1 Information obtained from the interview Use content analysis

2. Analysis of data from questionnaires

2.1 General data of the respondents were analyzed by using quantitative statistics as follows: Frequency and Percentage

2.2 Data on the model of basic education institution administrators in the era of Thailand 4.0 The researcher analyzed the data by using a package program by distributing the frequency

and finding the percentages in the optional part, using the mean and standard deviation in the scaled segment estimates the assignment of an answer or option at each level using the following criteria (Boonchom, 2002).

The average score of 4.50-5.00, meaning that is most suitable.

The average score of 3.50-4.49 means that the suitability is at a high level.

The mean score of 2.50-3.49 means that the suitability is in the medium level.

The average score of 1.50-2.49 means suitability is at a low level.

The average score of 1.00-1.49 means that the suitability is the least.

2.3 Analysis of data obtained from expert interviews is a questionnaire in round 2 and 3 to calculate median, mode, and interquartile range. Range) using a program.

VI. RESEARCH FINDINGS

Objective 1. The results of the research revealed that development model for school administrators of the Office of the Basic Education Commission in Thailand 4.0 consisted of 5 key components: characteristics of modern management, modern skills. Roles of modern management, morality, and ethics of executives in Thailand 4.0 and the competency of executives in the era of Thailand 4.0 to be used as a guideline and drive the administration
of schools to be efficient and effective1.

Objective 2. The results of the research were to create a model for the development of administrators of the Office of the Basic Education Commission in Thailand 4.0 using the Delphi technique. Technique) from 30 experts from the first round of analysis by Delphi technique and from the Delphi technique Technique) in the 2nd and 3rd rounds to verify the accuracy of experts and exploratory factor analysis to examine the weight values of the indicators for each component. The criteria for selection were factor loading of 0.5 or higher. It was found that the development model for school administrators of the Office of the Basic Education Commission in Thailand 4.0 had 5 main components as follows: 1) The leader is composed of eight indicators; the sub-elements have the weight of the indicators in the component (factor loading) was between 0.841-0.651 with a variance of 8.987 and a percentage of variance equal to 7.8472). Vision consisted of indicators of 8 subcomponents. loading) was between 0.874–0.654 with a variance of 7.654 and a percentage of variance of 6.654 3) Moral and ethical indicators consist of 6 sub-elements. There is a metric weight value in the component (factor loading) was between 0.687–0.698 and had a variance of 5.987 and a percentage of variance of 5.984). Knowledge and competence consisted of 6 indicators of sub-components. between 0.745-0.684 had a variance of 5.45 and a percentage of variance of 4.35; and 5) Information, information, and technology It consists of 6 metrics, sub-elements with metric weight values (factor loading) is between 0.698. -0.556 variance was 3.68 and percentage variance was 3.45, respectively.

Objective 3. The research results showed that the assessment of the appropriateness of the development model for school administrators of the Office of the Basic Education Commission in Thailand 4.0 from the school administrators under the Primary Education Service Area Office in Chonburi Province. 101 people

found that the level of suitability of the basic education institution administrators in Thailand 4.0 era, overall and aspects were at a high level, with the mean from descending as follows.

Information, information and technology ($\overline{X}$ = 4.21, SD = 0.56) including 1) Educational innovations and digital technology And have media knowledge; 2) have communication skills Can communicate in many languages 3) Be knowledgeable and able to use technology professionally 4) creativity can innovate Leadership and 5) Use information (Big Data) for analyzing data and creating a strategic plan ($\overline{X}$ = 4.21, SD = 0.45), namely 1) positive attitude. Optimism 2) Lead change in various fields Keep pace with modern events 3) Leadership, empowerment and positive inspiration 4) Good interpersonal relationship 5) Developing Accepting change and new things and 6) always being dependable to others Vision ($\overline{X}$ = 3.98, SD = 0.65) ie 1) positive vision Be aware of the past and present situation 2) the future 3) be a forecaster to keep up with the changes of the world 4) be a reformer, developer and visionary 5) being a innovator, always innovating in moral, ethical and 6) Be a human developer towards a stable and sustainable future ($\overline{X}$ = 3.98, SD = 0.60), i.e. 1) adhere to the philosophy of sufficiency economy as a management and lifestyle guideline 2) morality, ethics, transparency and accountability 3) Be honest, 4) use good governance principles in management and 5) be a role model for teachers. Personnel and students and their knowledge and competence ($\overline{X}$ = 3.98, SD = 0.65), namely 1) knowledge in science (management principles Regulations and policies) and arts (management techniques, administrative psychology) 2) to learn new science. And continuous self-development 3) a model (model) and new methods of management 4) knowledgeable and skilled in various fields such as English, technology, and 5) able to learn new technology and use it. Correctly in order

Discussion

The results of the Objective 1 research found that the development model for school administrators of the Office of the Basic Education Commission in Thailand 4.0 consisted of 5 key components: characteristics of modern management, new skills, roles of modern management, morality Ethics of management in Thailand 4.0 and the competency of executives in the era of Thailand 4.0 to be used as a guideline to drive the administration of schools to be more efficient and effective. Consistent with the research Ungkanawin.K (2020), the innovative model of learning that influences the achievement of the School Administration for Learning in the 21st century, and the concept of executive competency of David McClelland (McClelland). The results of the Objective 2 research were found that the development model for school administrators of the Office of the Basic Education Commission in Thailand 4.0 There is five main components: 1) leadership, 2) vision, 3) morality, ethics, 4) knowledge and ability, and 5) information, information, and technology. Fundamentals in Thailand 4.0 must be knowledgeable, knowledgeable, up to date with technology and information, must develop themselves and pursuit of continuous learning, vision, and academic leadership. Able to supervise and introduce others must have morality, ethics, a good role model and be accepted by teachers, students, educational personnel, and the community in

accordance with the research of Rosukon Inchai, Khao Anucha, Kon Puang and Sukanya Chamchoi (2018) studied on the development of self-sufficiency educational institutions. The objective of the research was to 1) study the components of the sufficiency school administration of innovation by interviewing 8 knowledgeable and experienced persons. Only place Innovation through cooperative action research Classified into 2 stages, preparatory and operational, and 3) evaluated the development of innovative sufficiency school management with participatory action research by taking lessons from the cooperation network group. Educational institutions and teachers and student representatives The findings were as follows: 1. The components of the innovation sufficiency school were 2 The levels were: 1) The educational institution level consisted of 6 components: (1) the background of the school (2) the strategy plan of the school (3) the leadership of the school administrators (4) the internal ICT structure of the school) Government and community support (6) school culture and 2) classroom level The learning management dimension consists of 6 components: (1) learning objectives (2) teacher roles (3) student roles (4) The use of ICT, media and learning resources (5) Networking (6) Multiple outcomes 2. The results of the development of innovative sufficiency school administration through cooperative action research by selecting one target school, which is a learning center based on the philosophy of sufficiency economy in Phitsanulok Province in the preparation stage of the research team establishment Of 21 people and a development team of 15 The people who analyzed the school environment found that most were consistent with the composition of the educational institutions of innovation and brought the weaknesses / obstacles to formulate guidelines and 3 main strategies, namely 1) developing ICT systems to support innovation 2) Promote learning management to be an innovative school. 3) Enhance cooperation with network partners in the development of innovative educational institutes and operational procedures to transform strategies into action plans. Problem solving during operations.

3. Evaluation results for innovation sufficiency school administration development it was found that the results were achieved according to the criteria set, and the success factor was the leadership of the executive. The support of network partners and elements of the administration of the Sufficiency Education Institution, which is a good foundation for the development of the Sufficiency Education Institution. Innovation where every element is related to each other in accordance with empirical data in line with the Lapisun concept. Sinlarat (2009), researching innovation into practice in educational institutions, found that the development of teachers' cooperation and the strength of the management team to drive educational innovation to schools to be successful consists of important factors, namely Collaborate with teachers in the use of innovation and the strength of the management team to use administrative principles and management strategies in educational innovation management so that teachers and teachers cooperate in driving innovation together. The results of the hypothesis testing also found that the ability to manage educational innovation in 21st century had a positive direct influence on promoting the use of learning innovation in educational institutions with a path coefficient of 0.73 effectively. The objective research of item 3 found that the level of suitability of the development model for the education institution administrators of the Office of the Basic Education

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Commission in Thailand 4.0 overall and individually. Very level this is because the administrators of basic education institutions are now eager to develop themselves to be able to keep up with the rapidly changing world. Therefore, the level of suitability of the basic education institution administrators in Thailand 4.0 era, overall and individually Very level In line with Sornet Aree Sophonphichet (2018) research, we have studied innovation in educational administration towards change "4 Learn" This 21st century education is a new era of education that focuses on learner development. To have knowledge and skills of the future is education for change (Education for change) focus on learning management aimed at improving the learning quality of the new age learners. Creatively 4 characteristics: (1) learning through creative thinking Provide learners with creative thinking skills as the foundation of the thinking process (2) learn to innovate by themselves, ready for change (3) learn to live together on diversity Focus on providing learners to understand the diversity of people in different societies. Race, society, economy, and culture to learn how to live together happily and (4) learn to share and take responsibility for society, which is a challenge for schools or educational institutions to develop a new paradigm for innovation in educational administration towards the development of transformational education that can connect people development. And community development and building processes develop the learning quality that meets the future world the concept of educational management innovation development that emphasizes the development of a new paradigm of problem-driven education management that can be applied. According to each context of each organization, it is called "Educational Administration Innovation to Change 4 Learn", which is a management innovation for holistic education management with the concept of the development of two dimensions: horizontal dimension. This is a process dimension such as motivation, creating new ideas, applying realism, and defining the process. Vertical dimension, which is the dimension of changer, i.e., internal changer and changer outside the organization. Based on contextual-designed assumptions they are different for each organization, which must be tried and updated continuously to be successful. In management that leads to constructive change.

Suggestions for the next research

1. Development model for school administrators of the Office of the Basic Education Commission in Thailand 4.0 should connect various departments, personnel, and activities. To promote and support the operation of the organization to be effective to achieve the desired objectives. And there must be a concept of educational development. The problem should be analyzed. And find solutions to problems that will help in development and facilitate the teaching process and with the development of learning resources, teachers must learn and must adapt with children when technology and innovation change rapidly, teachers cannot become knowledge holders as before because from now on, waiting for textbooks to the teachers are not communicating enough because children now have faster access to information than meeting the teacher.

2. Development model for school administrators of the Office of the Basic Education Commission in Thailand 4.0 must have knowledge Competence, skills, and administrative experience the focus should be on self-study, i.e., lead oneself in learning. Knows what interests you, knows how to find information, how to acquire information, and refine knowledge. Have skills in thinking, planning, and managing your own life.

3. The development model for school administrators of the Office of the Basic Education Commission in Thailand 4.0 must have morality and ethics by choosing to suit the management context and implement the principles until it is a character. Both morality and ethics for oneself, morality for administration and morality and ethics for society

Suggestions for further research

1. Should continue to research the management problems of the development model for school administrators of the Office of the Basic Education Commission in Thailand 4.0 to be a guideline for solving the administrative problems of basic education administrators.

2. There should be a study of the factors that promote the administrative efficiency of the educational institution administration development model of the Office of the Basic Education Commission in Thailand 4.0 to develop tools that help in the administration for further efficiency.

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The Guideline Development for Civil State Community Market Model Driven through Thailand 4.0 Policy

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The purposes of this study are to 1) assess the current situation of operating the community market in accordance with the Pracharath (civil state) project driven through Thailand 4.0 policy, 2) examine problems and barriers of managing the Pracharath (civil state) community market, and 3) explore and introduce the model of the Pracharath (civil state) community market. Additionally, the mixed method, combining quantitative and qualitative techniques, were used questionnaire with 402 samples. Also, in-depth data were collected by interviewing persons involved. Besides, Data were analyzed by using descriptive statistics, confirmatory factor analysis (CFA), and interpretation. The result shows that 1) In terms of operating, the customers are quite impressed as they get what they want. The quality of the merchandise is the Pracharath (civil state) stores' top priority. The products have to be standard and reliable. In addition, the staffs of stores are honest. In terms of distribution channels, The stores are conveniently located and easy to access. In terms of marketing promotion, information is always provided to customers. In terms of price, the prices of products are reasonable comparing to other shops. The analysis of the model, after the static adjustment, shows that all values passed the criteria. 2) Moving to problems and barriers in managing and operating the store, there is a lack of electronic equipment for use in the store. Besides, there are customers' arrears. It was found that some products are about to expire. Also, the kinds of products are not varied. 3) The model of the Pracharath (civil state) community market should focus on customers' motivation, for instance, giving an average dividend, return the benefits. The pattern of developing all those involved in community stores, marketing communication, and an excellent administrative system should be also focused on.

Key words— Model development, Marketing, Pracharath (Civil State), Thailand 4.0

I. INTRODUCTION

Human being in the society is to encounter with the nature to survive in different cultural beliefs and political economic system affecting to global society and Thai society in 4 aspects: 1) Inequality between the country and group of people in the society 2) Poverty of people 3) War and Violence and 4) Decedent ecosystem in local of system in worldwide countries.[1] These 4 mentioned aspects become a capitalist economy problem which emphasizes in seeking profits of capitalists and multination corporations. To illustrate, capitalism in China or Russia focus on increasing productivity and capital accumulation in economic growth to be able to compete with other capitalists which is different to Thailand Development Concept at the present. The government is boosting "Pracharat Concept" so that some government organizations can drive the economy of our country leading to peace, unity and the society towards Stability, Prosperity and Sustainability. It causes the exchange of needs of citizen improving the quality of life

leading to Thai people's well-being. The state sector supports "Thailand 4.0" aiming to cope with poverty and inequality, to strengthen local economy in accordance with Pracharat concept to grant village fund and urban communities and to help farmers in developing their business into SMEs and community enterprises in order to balance the production and community economy. Nowadays, there are 19,720 community shops and 1,359 community markets under Pracharath Rak Samakkee (Thailand) Co., Ltd.'s marketing administration. [2]

Due to the competition, the community shops are facing market shares and incomes loss. Moreover, they are also inferior to convenient shops because of lacking knowledge of experience, technology, capital, personnel and shop management. Because of purchasing by cash, the products in community shops are limited. Besides, the shops are not clean, and products are placed on shelves randomly without sorting into categories as well as unprofessional products stocking. These weak points cause expired products, missing products and uncertain amounts of products. Eventually, the customers do not satisfy the shops and turn to buy products

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from other shops. In the end, the community shops are facing the loss and they need to be closed down. These issues become the failure because of lacking understanding in marketing contributing to worsen social well-being of people and country development. Investigators realized that it is very urgent case to study. If the issues still occur, development tardiness will be followed. Due to this reason, investigators created a plan in developing Pracharat concept to drive Thailand 4.0 policy aiming that Thai society owns Stability, Prosperity and Sustainability.

II. RESEARCH OBJECTIVES

1. To evaluate the operation of the community marketing in accordance with Pracharat concept which aims to drive Thailand 4.0 policy. 2. To study problems and obstacles in community marketing management in accordance with Pracharat concept which aims to drive Thailand 4.0 policy. 3. To suggest a community marketing model in accordance with Pracharat concept which aim to drives Thailand 4.0 policy.

III. RESEARCH METHODOLOGY

This research is an applied research which uses the research's methods from "Mixed Method Research" consisting of 3 steps of data collection as follows;

1) Step 1: Quantitative Research,
2) Step 2: Qualitative Research,
3) Step 3: The Participatory Community Shop Development

The main objective is to develop the participatory community shops to be as community shops' model which are

- Ban Tam Naya, Na Pho Subdistrict, Mueang District, Roi Et Province
- Ban Non Sawan, Pang Kwang Subdistrict, Mueang District, Sakon Nakhon Province
- Ban Som Poi, Sompoi Subdistrict, Rasi Salai District, Sisaket Province

According to the selected sample areas, we have the research methods as follow;

Step 1: Quantitative Research

The target group is inhabitant who live in surrounding area in Roi Et, Sakon Nakhon and Si Sa Ket provinces. A sample size is 402 people by using Accidental sampling among 134 people in each province.

Questionnaire is used in data collection covering

objectives. The result shows that the coefficient equals to 0.941.

Descriptive statistics are utilized to calculate Frequency, Percentage, Mean, S.D. (Standard deviation) and Confirmatory Factor Analysis (CFA) and examine an accuracy by considering Standardized factor loading. Confirmatory factor analysis consists of 5 aspects: Operation, Product, Cost, Venue and Marketing Promotion as well as content analysis, problems and recommendation.

Step 2: Qualitative Research

The main informers are committee groups of marketing demonstration center including community leaders, members and government organizations related to the areas.

In order to collect the data, we have an in-depth interview and discussions of focus groups. The process of collecting the data includes recording, taking pictures and observing.

1. To have the in-depth interview total 15 persons with the committee of marketing demonstration center, the community leaders and related persons who develop the community, salespersons of the community shops and members.

2. To have the discussions of focus groups such as the committee of marketing demonstration center, the community leaders, community development specialists and representatives of sub district administrative organizations by applying group discussion tools.

The data we received has been examined by triangulation methods consisting of a data triangulation, investigator triangulation and methodological triangulation. We analyze the qualitative data following to the marketing content and content analysis which are considered about context, environment as well as interpretation.

Step 3: The Participatory Community Shop Development

The development of evaluation and which can drive the community development by providing a training program as follow;

1. The selection the driving area which is the Ban Sompoi Market Demonstration Center from the overall with having highest score.

2. The workshop seminar drives the idea of community shop model with 35 persons.

IV. RESEARCH RESULT

Part 1. From evaluating the community shops according to Pracharat concept to drive Thailand 4.0 policy, the results show that 53.24 percent of customers satisfy the community shops. 49.25 percent of customers are quite

impressive. 55.97 percent of customers owns products they need from the community shops. Regarding key factors of Pracharat community shops, the results were shown in Table 1

Table 1: Mean, Standard deviation, the result of key factors of Pracharat community shop

Key factors of Pracharat community shops	$\overline{X}$	S.D.	Results
Operation			
Staffs are honest in charging and returning changes	4.35	0.89	Most
Staffs are helpful and friendly	4.34	0.87	Most
Staffs are knowledgeable about products and services	4.25	0.92	Most
Total	4.24	0.89	Most
Products			
Reliable Standard products (FDA label)	4.38	0.85	Most
Worth and beneficial products (trustable products)	4.32	0.91	Most
Be on sale in every festival such as Songkran	4.25	0.92	Most
Total	4.27	0.88	Most
Cost			
More worthwhile than other shops	4.31	0.87	Most
Special price for members (Getting discount)	4.11	0.99	More
The cost is cheaper than other shops	4.05	0.97	More
Total	4.01	1.06	More
Venues			
Good location and easy to access	4.34	0.94	Most
Attractive, clean and safe shops	4.26	0.97	Most
Shop layout is convenient to buy products	4.22	0.92	Most
Total	4.15	1.03	More
Marketing Promotion			
Provide news (News board and announcement)	4.00	1.06	More
Hold marketing promotion event in some festivals	3.99	1.02	More
Set up the marketing promotion advertisement	3.74	1.19	More
Total	3.76	1.15	More
Grand Total	4.09	1.00	More

Table 1 states that the target group paid attention to 5 key factors in the "Most" level. Considered in each aspect, it shows that the mean of Operation aspect is in "Most" level on staff's honesty staffs are helpful and friendly and staffs are knowledgeable about products and services.

Regarding Product aspect, the mean is considered in "Most level". Reliable Standard products must be worthwhile and beneficial the product must be on shelves in special festivals.

Regarding to Cost aspect, the mean is in "Most" level focus on the worthwhile of product. They emphasize is the special price for members.

Regarding Venue aspect, the mean is also in "Most level". Locating in the good location and easy to reach spot is the most crucial item. The shops should be attractive, clean and safe and must have a good layout to make customers convenient in purchasing products.

Regarding to marketing promotion, the mean is in "More" level to date with news via news board or announcement and should hold a marketing promotion in some special festivals and the last importance is setting an advertisement to promote the products. The result by using Confirmatory Factor Analysis (CFA), as show in Table 2

Table 2: Statistics of the consistency of a theoretical component model to the data

Index	Criteria	Pre-model modification		Post-model modification	
		Statistic	Result	Statistic	Result
χ^2 / df	<2	4.875	Not passed	1.378	Passed
GFI	>0.90	0.719	Not passed	0.939	Passed
AGFI	>0.90	0.669	Not passed	0.905	Passed
CFI	>0.95	0.895	Not passed	0.992	Passed
RMR	<0.05	0.085	Not passed	0.049	Passed
RMSEA	<0.05	0.098	Not passed	0.031	Passed

As show Table 2, It needs to be modified in order to be more concordant by adjusted the model from recommended unit from Model modification indices (MI) which means

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that model affects to Key factors of Pracharat community shops.

Table 3: The result of second order confirmatory factor influences to Pracharat community shop

Key factor influencing to Pracharat community shop	Standardized factor loading
1. Operation	0.77
2. Product	0.95
3. Cost	0.94
4. Venue	0.94
5. Marketing Promotion	0.94

As shown in Table 3, the result of second order confirmatory factor influencing to Pracharat community shops was found that attractive incentive equals to 0.95-0.77 of Factor loading. The most level is Product accounted for 0.95. Then, cost, venue and market promotion equal to 0.94. The least one is Operation equals to 0.77

The conclusion of the first order Confirmatory Factor Analysis in 5 keys factor as followings:

1) Product factor: The product must have its values and benefits. To illustrate, the products should be accepted by the customers and match to customers' need such as brands or sizes.

2) Cost factor: The product must be worthwhile when comparing to other shops.

3) Venue factor: The shops must have a good layout to be more convenient in purchasing and the products must be on shelves and clearly labeled with price tag.

4) Marketing Promotion factor: The marketing promotion events must be held in special festivals.

5) Operation factor: The staffs are honest in charging and returning the changes.

Part 2. The problems and obstacles

The operation process problems found that lack of electronic equipment to service the customers. Uncertain opening-closing time, the change is not enough for money management system of sale products in each day. There are too many committees rarely have time to take care of the shops and lack of trade understanding. A procurement of products from the outside vendors is not transparent for example, there is a list of products but the products are not shipped. Lack of techniques to improve sales potential. The community members who bought credit and had overdue or late repayment rarely enter the shops. Some members buy a lot of products and have late payment which can affect to the waiting time of other members. The members want to take the credit /the disruption of capital if the members do not pay the debts. The shops still have lost items and lost

money. The product problems found that the products are not enough and going to be expired. The products are not various such as lack of construction equipment and safety of the products and services. The cost problems found that the members have an opinion that the products are expensive. So, they do not want to be charged with high interests. Product cost is not constant and the product procurement has high price. The members cannot receive a discount or giveaway. The distribution problems found that the shops are small/the weather in the shops is hot. The placement is not appropriate. So, it is hard for the customers to find the products and high shipping cost. The marketing promotion Inadequate communication with the customers. The operating problems found that lack of support and promotion from the government, lack of low-cost sources of the products. There is a high competition of the community shops and accounting and tax understanding. The customers want to pay by cash which is from their state benefit card.

Part 3. The guidelines of driving community model by the workshop seminar have the results as follow;

1) To motivate the members and customers by focusing on the dividend and benefits and to promote marketing by drawing the month-end raffle and rewarding for the highest buyers.

2) To have marketing communication by using communication boards, informing about news or products, creating Line accounts for the community shops and applying shop management system for checking stocks of the products.

3) To applying the community shop system through mobile phones and applying POS systems which has the community credit system in order to generate high profits and reduce problems.

4) To promote the networks of community shops to have participated operations and disseminate knowledge, service understanding, news, and publicize community events.

V. DISCUSSION

According to the research result,

1. From evaluating Pracharat community shops and markets, it found that target group is pleased with community shops. The result is identical to Thassana Hongma (2 017) [3] explaining that the relationship between market management and marketing mix factor of customers own products they need and are impressive supporting Supanee Nawakul (2018) [4] stating that the evaluation found if the committee pay attention by encouraging the customers, community shops will be

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successful. The statement was same as Khawnkamon Donkhaw (2013)[5] statement that the important component of community business was moderateness, rationality, self-immunity, knowledge and moral which were the crucial component of Sufficiency Economy's philosophy.

The key factor of Pracharat community shops in operation aspect is the staffs are honest, helpful, and friendly. Likewise, Kovit Hunviset and Lumpang Manmak (2015)[6] explained that the factor causing the positive role is the leaders or owners must be an honest, longsighted, and intelligent. The goal of community shop management is the leader is knowledgeable and members help each other.

2. The problems in operation aspect is lack of electronic devices supporting the service and overdue payment of the members. Also, Kovit Kunviset and Lumpang Manmak (2015) stated that a drawback is a management of financial system without technology and placing the products on shelves unsystematically like Suchinda Jemsripong (2010) [7] explained about lack of systematical stocking, clear price tag as well as convenient devices.

Regarding Product aspect, the result found that the products are not various and not enough for the customer's needs. Likewise, Watjirachai Wetninnart (2014) [8] mentioned the community products were facing lack of product variety and safety of products and services. Suchinda Jemsripong (2010) stated that a major issue of traditional shop is the product categories are not various.

Regarding Venue aspect, the shop's appearance should be improved because the shop size is small and has less area. The atmosphere inside the shop is hot. Moreover, products are hard to find because of unsystematic stocking. The overview of shop is under standard. The result is identical to Ampan Sirisom and Dita Sengwattanachai (2018) [9] statement explaining the products should be placed into categories. Moreover, the shop should improve about cleanliness, have area for walking, and systematic parking lot.

3. To develop community shops, shops should provide a motive like dividend, welfare and marketing promotion activity such as draw lots in the end of the month and award the member who is the top spenders. Kovit Kunviset and Lumpang Manmak (2015) stated that the shop should boost marketing promotion by distributing discount or using the program like Suchada Jara (2018)[10] stated that technologies are very important in well-organized operation because the operation will be easy to take care and examine. Then, the shop should supply modern and high-quality devices to apply with operation. Likewise, Supanee

Nawakun (2018) suggested the shops should improve payment method such as using QR Code.

VI. RECOMMENDATIONS

1. According to the research, those who are responsible for promoting the community shops provide training for persons who are related to the community shops, have an integrity, marketing understanding, and make standardized, reliable, value products, distribution channels and promote marketing and inform the news.

The shops should develop a strategic plan to promote the development of community shops to be as a model community shop networks in the local area of the province and to promote cooperation with the community shop network across provinces.

2. There should be the development model of community shops to have clear understanding on customer motivation and marketing communication. Therefore, the committee of community shops and related persons have to organize the meeting on the development of dividend, benefits and marketing promotion by communication boards, products and services, Line accounts and community shop management program.

3. Recommendations for next project research.

1) There should be a research on driving the networks of community shop about learning development and building strong cooperation of the communities of provincial groups.

2) There should be a research and development of technology systems to support community shop to be stable.

3) There should be a research on the integration driving the networks of community shop by cooperative processes.

4) There should be a research on participated networks of community shop's management.

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The Study of Cultural Tourism Development Framework for Sustainable Tourism: Case Study Lampang Province

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This research purpose is to study the context of cultural tourism site which facilitate to the development and tourism promotion and to present a model for development of cultural tourism management for sustainable tourism by selected Phra That Chom Ping Temple, Ko Kha District, Lampang Province as case study. The research result found that 1. Phra That Chom Ping Temple is one of the Buddhist cultural sites that still have a strong connection with the historical place and the beautiful architecture and arts objects still remain the same. 2. A Model of Cultural Tourism Management Development of Phra That Chom Ping Temple. The concept of "Bor - wonn" should be applied to houses, temples and schools to promote and support cultural tourism in communities which requires two main areas of development as follow: 1) The development of community potential and quality of tourist attractions by using community participation to improve tourism communication is the collaboration with external agencies for creating a learning process among people in the community as well as raising an awareness of preservation as a development instrument. 2) An efficiency development of networking links related to tourism development and promotion by creating the cooperation with the Education sector to promote the knowledge management system in the community and develop relationships with the government agencies and related tourism networks, including the cultural development tourism marketing together with the private agencies and administrative tourism and services sectors.

Key words—*Cultural Tourism, Sustainable Tourism, Tourism Development*

I. INTRODUCTION

From the beginning, a cultural tourism has started from the awareness of the society in giving importance to Arts, cultures and traditions, and folk cultural heritage which is a result of ethnic diversity, languages and cultures in each area [1].

The tourism attraction line ways are planned to pass the several ancient civilizations and viewing the remains of world history from the remained fossils as well as to see the landmark of each places which related to their local traditions and cultures, such as archeological sites, temples, antiques, traditions, ways of life of the local people, local history and all kinds of art that represent the developed prosperity in the proper environment, and people lifestyle in each era as well. In addition, the cultural tourism also has the goal of studying knowledge from the way of people lives, customs and traditions of people in various countries. These goals will support the cultural tourism as an important basic resource and play a role in attracting tourist from various countries which support the nation income and get highest benefit return for the national economic site [2].

Thailand is provided by a well-enrichment by the several

natural resources in historical and cultural tourist attractions which are an important factor to support the economic growth in tourism industrial. Thailand has not only reached the highlight of national geography resources, but has the special tradition unique in the way of life, traditions living, beliefs and rituals, and traditions arts and civilization cultures, etc. This is supplemented both Thais and foreigners tourist to visit Thailand in several tourist attractions and make the nation gain a huge of income in every year [3].

Thailand tourism industrial was succeeded that offer more opportunities to continue expand the cultural tourism industrial widely [4] [5], on the contrary, Thailand also has the unexpected negative effect problems from this rapid growth to the decadence and damage on the national environment, such as the way of life, culture and traditions way, and historical tourist attractions, etc. Recently, many researchers aware of the importance of conservation environment and interested to develop for long term sustainable [6] [7].

Regarding to the researcher, Mr. Voraphong Pookpu (2013) [8] has claimed to prevent the destruction of natural resources and local environment effect, the cultural tourism must contain with 1) Cultural tourism, 2) Environmental

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education process, 3) Business tourism, 4) Marketing tourism, and 6) Raising an awareness among tourists to achieve the sustainable cultural tourism. Thus, mixing and balance of preservation and cultural tourism are necessary to administrate and manage the improvement of cultural tourism in long term. Besides, technology is an important factor to support the development of culture tourism also, especially, to improve the tourism industry and all relevant parties. Thus, to prevent the losing of cultural, all relevant parties needed to responsible to the cultural tourism system and realize the opportunity risk to lose the source of knowledge as well as the local folk wisdom by conservative thinking, support and improve the cultural tourism to maintain the micro and macroeconomic for the nation as it can develop the local community income through the nation's income as well [9] [10].

In conclusion, this research is to support the culture's prevention by the management process of the cultural tourism by selected province in the northern part of Thailand where enriched the varieties of cultural resources and to develop the abilities to gain benefits and incomes in Lampang province where have several varieties of Thai antique and beautiful cultures as well as the outstanding artistic, traditions, and local folk wisdom within the communities. It can attract the tourist to visit from the unique calling as "Lampang, the city of never change by time to time" [11]. However, with lack of the systematic management and the communities still have no knowledge to preserve the valuable natural resources that they have and still remain an unknown city from public which caused no tourist visited to town much. The unclear vision of supporting from the government is still necessary as well as the obvious direction and guideline to develop and preserve the natural resources in surrounded area. Based on these problems, it becomes the intention to research for the guideline and planning the derection to develop the cultural tourism for long sustainable cultural tourism in Lampang province. By do the research study through the direction of cultural tourism where enrich of the pure national environment remained, as well as the other factors which supporting the local tourism in each area and develop the local business to make the local people can alive by themselves, together with the development and preservation their remained natural resource to be still useful and also balancing the benefits to all parties as well.

II. RESEARCH OBJECTIVES

To study the environmental context that affects tourism development and promotion and present the development model of cultural tourism management in the area Phra That Chom Ping Temple, Ko Kha District, Lampang Province, for the sustainable tourism.

III. RESEARCH METHODOLOGY

This research is concerned with Qualitative Research Methodology as case study in phenomenological study based in the objective as follow:

1. Research Area: The reason to select Phra That Chom Ping Temple, Ko Kha District, Lampang Province, has the approved historical evident which related to the folk regent that there have an unique outstanding in Arts and beautiful Buddhism architecture where needed to preserve. Phra That Chom Ping Temple located 23 kilometer approximately away from town, with the convenience transportations that link to another ecotourism and cultural tourism attractions where is worth studying to develop the ways to promote cultural tourism for sustainable growth.

2. Participants Key Informant group consist of:

2.1. People/ Group of people in the community which are the local people who lived in the research study area 15 peoples, such as monk, the community leader, committee, lecturer/academic researcher/ business owner and community's members. The purposive sampling will be used as research instrument and the selected criteria are national geography, social title or career, age, education and the acceptance from people in the community.

2.2. 15 Tourists by random selected as convenience sampling

3. Research Instruments

This research is to emphasis the understanding of the real situation in culture tourism which should link to the physical area of community, behavior, attitude, thinking awareness, acknowledge, to explain the concept and strategy in administration and management to improve the sustainable culture tourism. Therefore, the research instruments must consist of:

3.1. Observation

The observation will be used as moderate participation mean the researchers will take their role as an observer to participate and create the positive relationship among people in the community by launch the traditional and cultural activities based on the purpose to collect the primary data of tourism attractions, and to observe the local people's behavior for their relationship and participation towards culture tourism and environment within the community. The main purpose of observations is listed as follows:

- The physical character of tourist attraction that support cultural tourism

- The content of cultural and environmental that support cultural tourism

- The community participation toward cultural tourism management

3.2. Interview

An In-dept Interview will be used as Semi-Structured Interview with seven main questions as follows:

Question 1: What is the history or legends of Phra That Chom Ping Temple that has been told from the past?

Question 2: What is the community's uniqueness that has been inherited from generation to generation, such as tradition and culture activities, lifestyle, knowledge, wisdom, foods and dresses, etc.

Question 3: What is the relationship between people in the community and the temple in the field of belief, faith, inherited Buddhism events, tradition events, and preserving various culture identities, etc.

Question 4: How the community has the cooperation with the temple in the field of temple tour, tourist guide service, such as temple tour, tourist guide service as well as the preservation of Thai arts and cultures, planning and decision making for tourism management, including arrange the various of cultural activities, etc.

Question 5: Are there any other tourist attraction located nearby the community and temple?

Question 6: What is the tourism situation of Phra That Chom Ping Temple in nowadays?

Question 7: Which part of Phra That Chom Ping Temple should be developed to support and promote tourism industry for stronger and sustainable in long-term.

3.3. Sub Group Discussion is to collect data by talking with the community's members, 7 – 10 peoples, on the main purpose to planning and develop the temple to be the cultural tourism resources and consider the sub topic as follows:

- problems and obstruction to develop the temple to be the cultural tourism resources.

- strength and supporting factors that facilitate and develop the cultural tourism of the temple.

- How to guide the temple to drive and develop the temple to be the cultural tourism resources.

To check the quality of research instrument should initiate by consulting with the specialist to indicate the questions issue and design the topic to collect the data, such as survey, observation, interview, and sub group of discussion, etc. All corrected data will be tested to find the correction of content validity by three specialists to approve the correction of language using and content coverage to find the objective of IOC (Index of item-objective congruence)

Data Analysis

After every data collection in the field Information is obtained from taking notes in this case, the information issues are considered factual and attitude.

Summarizes the raw data obtained from all recording formats. To lead to analysis and interpretation

Write a detailed description of the results of the study of the findings. Both the physical (Physical) and the (Logical) effect on the cultural tourism of the tourist attraction. And write a summary to define guidelines for cultural tourism management of Phra That Chom Ping temple.

IV.RESEARCH RESULT

Research Outcomes are divided into two main parts as follows:

Part 1 – The study of the environmental context has affects the development of cultural tourism in the area of Phra That Chom Ping Temple.

Part 2 – The conclusion of tourism management model has developed the area of Phra That Chom Ping Temple and to be the sustainable tourism in long - term.

The research outcome for part 1 by analyzing and summarizing the research data in to 2 main thinking concepts which are (1) analyzing the data from the real situation based on the standard of tourism management and compare to nine key elements of Thai tourism standard index which refer to the development of Thailand tourism industry. (2) An analysis of business environment factors by using SWOT Analysis

Regarding to Part 1 of the research outcome, the research result indicated nine points that Phra That Chom Ping Temple has

Point 1

- a unique way of life, wisdom, and knowledge where can be seen in everywhere

- a beautiful of architecture and Buddhist arts object

- lack of inheritance of traditional knowledge which are original local knowledge and mostly lose from time passed time with people.

- a historical evident and history background which linked to temple and community.

- a temple which have high relationship with community and become the center to arrange the tradition activities in ever year, the nearby communities and other tourist are interested to join the events also.

- set up a small preservation group by the community but it is unofficial and lack of continuity of operations as it was gathered for temporary to arrange the specific traditional activities.

Point 2: Traditional Tourism Management Process.

- No planning for traditional tourism management process.
- No committees to take a responsibility officially for planning and manage the traditional tourism process.
- No obvious traditional tourism procession and management for developing the temple to be the tourist attraction resources.
- No plan for traditional tourism activities or events.
- Lack of human resources to take on responsibility and develop the temple to be the tourist attraction resources.
- No assessment of tourism operations and tourism satisfaction for improvement the temple.

Point 3: An administration of cultural tourism area management

- There is no allocation of responsible areas for tourist attractions with government, private and related agencies.
- Some part of tourism resources can be managed moderately in the area of tourist attraction only.
- Lack of participation from the community, association, and related clubs for continuity development.
- The temple's views are well organized, blending with existing natural resources.
- Continually developing, renovation and reconstruction at least 1-2 times per year
- No official rules or regulations required for tourists to visit various points of view in the temple
- No pictures or videos of the temple are recorded as back up information to use in the next year.
- There are many location indicated within the temple to show the valuable point of venues to visit.
- There are bounded areas for using and for tour visiting, clearly separated in specific proportions.

Point 4: Management Ability to Access Cultural Tourism Attractions.

- An access routes are all in good condition and convenient transportation through the year.
- Clear display for tourist spots provided within the temple. The tourists can easy to access.
- Fixed open/close time is clearly inform for sightseeing visit in every day.
- Neither vehicle service available for tour visit and nor bus service with fixed time schedule available and lead the tourist to the temple.
- No information posted for guideline the way to the temple.

Point 5: Other Facilities Management

- No foods and beverages shop service for the tourist.
- Toilets are not clean, non-hygienic and number of toilet room available has not enough for the number of tourists.
- No security system or no warning to the tourist for their belongings and life safety.
- No facilities installed for elders and disabled people.

- No souvenir shop service, just only a small service point located in out of eyes site area.
- A few places for seating and installed in resting area such as benches in the garden, etc.
- A public utility system ready provided and sufficiently enough to serve the tourists.
- No first aid service point.
- Well managed and reached the standard of waste and disposal management

Point 6: Service Quality Management in Cultural Tourism Area

- Lack of human resources development to serve the tourist.
- Lack of language skills and insufficient officers to serve and guide the tourist for touring and service within the temple area.
- The local people from the communities are employed for cleaning within the temple as well as give the temple's information to the tourist. However, they are lack of temple's history knowledge, unprofessional to promote the temple and lack of skill to serve the tourists in all service parts.
- Obviously, no media channels to promote the internal traditional activities which organized with the community.
- Unclear of job description, no rules and regulations for staffs, and no staff uniform shirts also.
- Lack of service control according to the standard of tourism management.
- No assessment for the standard of tourism service management.

Point 7: Management of Traditional Tourism Activities.

- No meeting and planning for organizing the tourism activities which cooperated with tourism network partners. Only a small meeting with monks, committees, and people from community that has been participated the meeting.
- Lack of the standard of control to organize the tourism activities which does not cause the cultural and tradition degradation and also the way of life.
- No other supported activities, only temple tour visit and repeated activities show remain such as Thai massage, Herbal stream for health, cloth weaving, and herb knowledge promotion center, etc.
- More than 1 cultural tourism activities provided in every year but it has been promoted for 20 years already.
- Lack of supporting and sponsorship to organized the tourism activities and get income to the community.
- Lack of activities that confirm the relationship with the entrepreneurs, tourists and local people from the community.
- No clarification stating the scope and limitation of cultural tourism activities in Wat Phra That Chom Ping

Point 8: Management of community participation and partners in the cultural tourism network

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- No set up group established in the community for together set up the guideline to manage the cultural tourism.

- Lack of cooperation with other external agencies, such as government, education, and private tourism sectors, etc to manage the cultural tourism systematically as well as lack of cooperation to support and development the cultural tourism of the temple. There is only the cooperation with the municipality to request supporting budget for organize the cultural activities only.

- Lack of clear support from external departments such as government and private sectors, and other related cultural tourism agencies to support and sponsor the tourism policies, supported knowledge and human resources development for tourism industry, etc.

- The community lack of income from tourism industry.

- Lack of development to improve personal knowledge and skills in tourism.

- Lack of self-awareness to realize and preserve the local traditional resources.

Point 9: Management of environmental and natural preservation

- No knowledge information giving about Phra That Chom Ping Temple to staffs and other related people in the community, including the preservation information to preserve the natural environment which is an important knowledge to support the tourism within the community.

- Lack of management supporting and environmental preservation, such as organizing campaign activities to develop and create the self-awareness to people in the community.

- Activities campaign organized for the local people to participate and maintain cleanliness in the temple area together.

- No assessment plan to assess the result of the environmental preservation

2) According to the research result, based on SWOT analysis analyze of the business environment of tourism attraction, the result indicated Phra That Chom Ping Temple as

2.1 Strengths: Phra That Chom Ping Temple located on the center of cultural tourism area which has

- historical connection link and reflect the vision to see the valuable of archaeological sites, art and antiques Various architecture etc.

- surrounded with the beauty of tourism attraction areas where unique and specific style.

- the communities surrounded the temple still maintain the local lifestyle of living which are simple, kindness, and sharing, etc. This is one of lanna charming tradition that continuing inherits time to time.

- the several communities surrounded with beautiful tourism attraction and set up the survey group to build the tradition routes already.

- charmed cultural activities and continually inherits from generation to generation.

- basic facilities that have been developed in many areas to support tourist's industry continuously. The outstanding features are

(1) winning the best toilet national award in 2016 or HAS. to won this award, it is required to pass the quality standard of cleanliness, adequate number of toilet rooms, and safely.

(2) the internal pathway within the temple must clean and clear with well manage pathway lay out sign, tidy view and well prepare for the coming tourists. For the elders and disable tourists, it is on consider and planning to improve the better service in the future.

2.2 Weaknesses: Phra That Chom Ping Temple still have problems from:

- lacking of marketing support to level up the temple in national level and international level

- lacking of community's participation to admin and manage the tourism industry

- lacking of human resources for support and together develop the tourism in community, due to most of labor age are moved to other districts and provinces, only children and elder peoples has left in community.

- lacking of communication among people in community still insufficient, no language skills practice for communicating with the tourists and no fully development of tourism industry in community.

- lacking of information point service to provide the tourism information and no guide to be a tour leader to introduce the temple and tell a story of temple's history to the tourist which make unattractive the tourist to visit.

- the community's school has no obvious role to support the tourism industry.

- lacking of technology to use for presenting the important information of tourism attractions to tourist.

2.3 Opportunities: to support the cultural tourist attractions around Phra That Chom Ping Temple:

- decorate the beautiful route way to the temple more convenience, widely, and beautiful, etc.

- many department or educational organizations interested in processing studies and research about the area around the cultural tourism attraction resources which is beneficial to cultural tourism industry.

- the tourist attraction has its reputation in a certain interested tourist group.

- there has several tourist attractions nearby where are well-known also such as Phra That Lampang Luang Temple, Pong Yang Temple, Lai Hin Luang Temple as well as the other tourist stopped points which are Ancient

Human Garden, Folk Museum, Pong Nam Ron National Park etc.

2.4 Threats: Obstacles affecting the development of cultural tourist attractions at Phra That Chom Ping Temple:

 - Insufficient of sign posting, some are broken and unclear to see.

 - Lack of integration of information related to temple tourism together with the related department from external organizations.

 - Seriously lack of supporting and promotion from both government departments/ organizations and other parties related to tourism.

 - Lack of connection link between alliance networks of travel partners

 - Lack of promoting system in academic knowledge and consultation from external agencies in order to create sustainable cultural tourism industry

The 2nd part of research summary: Format or guideline for development of cultural tourism management in the area of Phra That Chom Ping Temple, Ko Kha District, Lampang Province, for long sustainable tourism industry.

Regarding to the first part of research summary, it is significantly identify to the second part as Phra That Chom Ping Temple has several abilities for attract the tourist to visit in historical story, the unique beautiful of tourist attraction, natural environment and varieties of traditional activities through the local lifestyle of living which still remained. Refer to these factors; it is not only develop Phra That Chom Ping Temple to be the tourism resources in related to Buddhism but can be supported the growth rate of tourism industry and can use as one the instrument to develop the community for long sustainable tourism. The guideline can divide into two parts as follow:

Part 1: Strengthening the capacity of communities and tourist destinations

To make the community get more strength, the researcher found the best concept to develop Phra That Chom Ping's community by "Bo Vorn" concept as the create the cooperation within people in the community as House, Temple, and School are the center heart to make the tourism management move forward and become the cultural tourism resources by the following model picture.
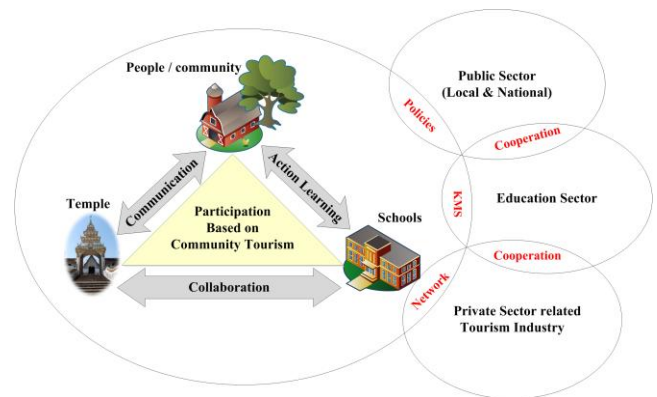
Picture 1. Model of Phra That Chom Ping Temple to be the source of cultural tourist attraction

From Picture 1, the researcher can conclude the main idea as follows:

1. Strengthen created to the community based on Community-Based Tourism Concept (CBT) by developing and encouraging people from community to participate and manage the cultural tourism at Phra That Chom Ping Temple. People are gathering to preserve their local traditional natural resources by specific the direction to develop the area to get income and benefit from the tourism industry with less damage effect to the community's cultural.

The sub-process to preserve is as follows:

1.1 Creating a community network to be the main driving system of cultural tourism management by using the principle of group process for thinking, doing and making a decision together for assessment the result.

1.2 Create an understanding of the roles and responsibilities of people in the community towards conservation of cultural heritage and tourist attractions in the community. This is to people in the community can allocate job responsibilities for joint management accurately and sustainable to cultural tourist attraction of the community.

1.3 Accelerating the development of communities to have the potential and readiness for participation in tourism management at both policy level and operating level by providing knowledge to communities and temples about traditional tourism related in all points as well as support for taking the tourism training course or filed trip to open new vision and accept new perception and awareness of value and benefit from the creation and development of tourist attractions in the community which can bring both direct and indirect benefits in the future.

2. Communication skills development for cultural tourism industry. This is the effective way to improve the communication between temple, community and external people to have the correct understanding together. It helps to support the community's uniqueness and stimulating everyone to organize many creative activities to encourage the community's tourism marketing and sustainable tradition tourism within the community as well.

3. Encouraging the collaboration between temple and school by using the tourism activities as an instrument. This is to create connections in the education sector to participate in promoting knowledge and organizing tourism activities by developing curriculum and learning activities in cultural tourism to stimulate the interest and enhance learning among students and the community.

4. Built up the community for learning process together with the principles of learning from real experience (Action Learning). It is to create a learning group by relying on practical actions which is creating opportunities for community group's members gain experience training from solving real problems and encourage people to develop their knowledge skills in cultural tourism management and services. Therefore, school has an important role in providing knowledge, academics, and scholarship, including to monitor the effectiveness of learning that has occurred as well.

5. Encourage all sectors in the community as well as people in the community, children and youth resulting in love, desire and feeling to preserve as the owner of the tourist attraction resources by telling the history story of the temple, suggest how to preserve and maintenance the antique architecture as well as the background story of cultural activities which lead to preserve the environment and cultural heritage of the community to remain sustainable

The development of the potential and strength of the community, by using the principle, is the development of internal factors that lead the creation of tourist attractions in the community to support the growth of tourism business in the future. Nevertheless, the tourism market still needs external support. Therefore, in the second part, it is important to create a sustainable growth for Phra That Chom Ping Temple which has the following details:

Part 2: Developing the efficiency of networking links related to tourism development and promotion with the following details:

1. Education Part: Promoting the knowledge management system in the community which reply on an expert personnel and knowledge both from the community (if any) and from external organizations such as, Universities, and schools, etc. to act as counselor and to give an advice or guideline for knowledge development in cultural tourism management and cultural preservation through the process of transferring knowledge of Learning for direct successfully experiences of tourist sites or other cultural communities. From this concept process, will emphasis on historical knowledge and cultural tourism linked together to support cultural tourism management planning and formulating cultural tourism strategies suitable for the local context and the conservation of cultural tourism resources which will result in a culture of knowledge transfer from generation to generation and build the community stronger as well as create community's awareness in maintaining and sustaining the development of cultural tourist sites.

2. Government and Network Partner Involved Part: Developing and promoting the creation of tourism network promoting activities to build up the relationships between communities and external agencies or organizations in the tourism and service sector in both public and private. This is to create the cooperation in the development of tourism product and service units to be ready and able to respond to the needs of both Thai and foreign tourists. Moreover, it can create a good memorize experience and impress tourists to learn the cultural history which is a result from the community cooperation process as well.

3. Private sectors in Business Tourism Industry Part: The development of cultural tourism marketing model can be success by using marketing plan and PR promotion for private sectors, such as press releases to open the tourist attractions, organizing the special activity or broadcasting through various online medias as it is considered the most effective tool to attract and get the tourist's attention and to stimulate the growth rate of the tourism marketing as well.

V. DISCUSSION

According to the research result, there have several significant interested point to develop the cultural tourism of Phra That Chom Ping Temple for long sustainable tourism industry as follows:

1. The potential to attract cultural tourism

1.1 The importance factors of Tourism environment that support the tourism industry

Regarding to the research result, it has found that Phra That Chom Ping Temple is the most oldest temple that

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have long history from time to time, moreover, with the beautiful spectacular of arts and architectures of Archaeological sites and ancients which have high value of history background, the community therefore can organize several cultural activities and they also can use this highlight for attract the tourist as well. Regarding to these advantages, it has related to the concept of Kanjana and Saranya Saenglimsuwan [12] stated that the historical and cultural features, location, tradition legend stories which has been told as well as various festive activities are reflected to the way of life or life condition. The well-being of people's lives are special character of cultural tourism industry. Besides, Laorit and others (2015) [13] who did the research study about the temple tour and the development concept to increase the potential of cultural ecotourism along Mekong River, Nong khai province, offer the concept idea that Temple is not only a symbol of the place for religion warship, but the Temple can be one of the tourist attraction where people and tourist can come the learn the cultural history. Thus, it is necessary to preserve the original tradition culture for the later generation to visit and see by organizing the local cultural activities and present on their eye sites to explain and give the knowledge through the important and value of the temple background as this is an advantage of competition in business tourism industry and attract the tourist from around the world to come in nowadays [14].

1.2 Tourism Route Management for Cultural Tourism Promotion

According to the research's result, it is significantly indicated that the tourism route way has effected to the tourist decision. From the tourist's interview, the direct route way should be convenience, short way, safe time and surrounded with beautiful view, beside, it should be easy to connect or transit to another transportation service and easy to go the other tourist attractions as well. This concept is similarly with the research article of Mr. Chumpol Rodjam (2012) [15] who studied about the route way to Arts and Cultural tourism attraction at Bang krui sub-district, Nonthaburi province as the tourist will consider to the convenience factors that have high value to visit by consider about the actual of distance kinlometer, gasoline price, and how long would it take time to, etc. While the research article of Thongwilai (2016) [16] also studied the element of tourism route way to tourist attraction at Pranburi sub-district, Prachuapkirikhan province that for Thai tourist, mostly are desired to enjoy seeing the enrichment of natural environment and the beautiful view along the way to tourist attraction, as well as the privacy of the tourist are one of the element choice for making a decision to visit

Pranburi sub-district which shown the convenience of route way and other facilitates can support the tourism industry and able to applied to new dimension of tourism industry style as well, such as the linkage route way to cultural tourism, the linkage route way to ecotourism and mixed linkage route way of tourism, etc.

2. The potential to support the cultural tourism

Regarding to the research, it is significantly found that the local people in Phra That Chom Ping's community still lack of potential to encourage the development of cultural tourism as most of them are elder people and doing agriculture as their main career while most of adult people are moved to other town for studying and working. This is caused the community lacks of labor force and knowledge to improve and manage the tourism in community. According to this research, it is similarly concept with Sukanthasirikul and Trongpanich (2016) [12] that the quality of service has high effected to the tourist's satisfaction as well as the tourism management and organizing the interesting activities are part of encouragement to increase the growth rate of cultural tourism industry. However, the lacking problem of the potential to maintain the natural resources and the heritage of culture are considering as main negative problem to stop the development of cultural tourism, due to lack of love and spirit cherish to preserve the local tradition culture. This is similarly with the research's result of Tan and others (2018) [17] which found that the relationship with connected to the local resident help people realize to the important of cultural heritage's value. This is to encourage them to feel as the owner of the place and inspire them to be a part of preservation to develop the tourist attraction to long sustainable tourism.

Thus, this research would like to offer the idea concept to build up the community's stronger and potential to manage and improve the cultural tourism at Phra That Chom Ping Temple by using the Community Based Tourism (CBT) as an instrument to support the learning process to the community and in a cooperation with the external departments both from government and private sectors to develop the cultural tourism as well. From this concept, it is similarly with the research of Chucharn (2009) [18] about knowledge management in cultural resources by the community's leader for cultural tourism at Bann Pa Morn Community, Doi Inthanon, Chiang Mai province which found that the process to build up the strong community is to specify the direction to manage the knowledge of natural resources and applied to use it for create the ability and potential to people in community to understand and know how to make a plan, practice and

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able to make a conclusion of the result after complete the process, including able to teach the lesson to the later generation to make an income and benefit to community as long sustainable tourism industry. Nonetheless, regarding to the research article of Narmwong (2009) [19] who studied the concept of developed cultural tourism at Lai-hin Community (located nearby Phra That Chom Ping's community), Kho ka sub-district, Lamprang province, presented the guideline to develop the cultural tourism, as the owner needed to take an important role to share the idea toward the management of cultural tourism's community by participating to the tradition cultural activity, and together make a planning to specific the direction to develop the local cultural tourism as well as spread out the income in community as well. Regarding to the research article of Imon, 2017 [20] which is similarly stated that the most important to develop the cultural tourism for long sustainable is to maintain the balance between the preservation of cultural heritage and support the development of cultural tourism which required to have sponsorship from the government and other external agencies and community itself. The process will start with doing the research to find the marketing needed and satisfaction from the tourist, then, planning and processing the development of all facilities such as transportation, services, accommodation to increase the ability to serve and support the tourists, besides, reorganize the organization structure for easier to manage and control the development process for further long sustainable of cultural tourism as well.

3. The potential in management of cultural tourism attraction

Regarding to the research, the researcher has found problems and threats of the cultural tourism development at Phra That Chom Ping Temple that lack of human resources to manage and no experience to develop the tourism, including lack of facility service, such as accommodation, no marketing and PR plan for promoting the cultural tourism also.

Therefore, for long sustainable tourism development, it is necessary to specific the direction of movement that it should be clear stated to manage by considering on the factors that needed to balance the existing cultural natural resources, tradition, and cultural activities together and get the beneficial to community. This is conform with the research concept of Hunnark (2015) [21] who studied the connection of tourist attraction in Samutsakorn province and found the element factors to link each of tourist attraction together which are incomes, benefits, and better quality of life of local people in the community, etc.

Moreover, this concept also similarly with the research article of Kumwong (2012) [22] stated that to develop the cultural tourist attraction, it is needed to develop in physical elements such as promoting for safety within the tourist attractions, and public transportation, etc. while creating love spirit and cherish to preserve the original culture and environment, participating to develop the tourism industry by create the identity for dressing an uniform for vendors and staff service to show their tradition costume as well as in a cooperate with the government office and private sectors related, and academics papers, Pathomkarnchana and Sungraksa (2015) [23] studied about "Guideline for promoting cultural tourism with community participation" at Bang Luang Market, Bang Len sub-district, Nakhonpathom province. They found the way to support the tourism development as staff people needed to improve their skills and knowledge to cultivate and realize the preservation of natural resources, arts and culture, especially, Jit-a-sa volunteer to develop the tourism in community. For financial sector, the Sub-district or local administrative organization and other related agencies should set up the budget for support or sponsorship and process as a group team for coordinating, information service offer and support the helpdesk to the temple.

According to the cultural tourism management, there is another important guideline needed to apply for business cultural tourism industry at Phra That Chom Ping Temple which is the systematic to develop cultural tourism for creating the knowledge and how to get on closer to the tourist to impress and attract them visit tourist attraction in Thailand. This is a similarly concept of Anakesuk (2016) [24] stated that it is necessary to manage and develop the potential of natural culture resources to get the satisfaction from the tourist effectively by using the tourism marketing mix as a processing tool which are consisted of

1) Cultural Tourism Product: by emphasis on tourist products and service related to recreation activities, cultural activities and tourism services toward the tourist's needed for living together as an union community

2) Price: Price setting should be focused in accordance with price strategy for maximum benefit such as promoting local people to invest with lowest cost supply for price competition in local market as well as friendly tourism service to all coming tourists, etc.

3) Place and Distribution Channel: focusing on the distribution area to distribute the tourism products in the long term by creating the network of cultural tourism

partners and using new technology such as online internet or website to promote the tourism products for selling.

4) Marketing promotion: Focusing on creating the attraction by Ad, public promotion (PR) in accordance of tourist's interest and reach directly through the target quickly as well.

VI. RECOMMENDATIONS

1. For Government department, Private Sectors, Education Department and other tourism agencies related

1.1 Government department, entrepreneurs, and other tourism agencies related should seriously take an important role to consider and seriously support the tourism industry both policy and practical to encourage the connected cultural tourism industry by on site survey and research, develop and set up the simple visible of cultural tourism plan, as well as give the cooperation to the community, education department, and business tourism agencies for integrated tourism development program by using the tourism route way to determine the route connection which help to get the attention and attraction of tourists to visit around various cultural sites.

1.2 Government department, entrepreneurs, and other tourism agencies related should take a role as the center heart services for process and get the participation from people in the communities. They should support the development of all kind of knowledge which related to cultural tourism, including guideline local people to understand that they can get income and benefits from business cultural tourism service to develop their community and easier to cultivate their love and cherish through their original resident and the cultural heritage resources for long sustainable ever.

2. For Local Community

2.1 The community should set up several clubs or an independent group from the community's member to be a main group to develop all kind of dimensions the cultural tourism industry around Phra That Chom Ping Temple, for example, keep cleaning around tourist attractions, make the environment view balance with the surrounded cultural tourism area, plan and process the activities which support to the business cultural tourism industry, recruit and employ skilled people to serve the tourist and coordinate with the external tourism agencies related, etc. This is the process to encourage the awareness and alertness among people in community for unique cooperation to develop their hometown.

2.2 The community should recover their original

knowledge, tradition way, activities, and antique traditional lifestyle for avoiding to lost and to become real activity which tangible and seen able, for example, build up the career development center and open the teaching course activity for trainee to serve the tourists, such as, local weaving, herb education and how to use herb for good health, and massage therapy, etc. This is help to make the tourist satisfies, more attraction, and revisiting in the future as well.

2.3 The community should get more local promotion in cultural tourism service image by present the history of each tourist attractions to create the reputation while develop language skills, manners to impress all of tourists, and other tourism service related which necessary to support the service to tourist around the world.

3. For Tourist Attractions

3.1 All tourism departments and agencies related should seriously take their important role to preserve the Buddhist Arts uniqueness, as well as an antique architecture, local tradition activities, cultivate love and cherish through their hometown, and preserve their local cultural resources heritage which are important supply cost for business cultural tourism industry.

3.2 All tourism departments and agencies related should in a cooperation to improve the quality of cultural tourist attractions, such as, adding for service facilities, reorganizing the area and view around tourist attraction, develop guide's ability skills for serve with good manner and able to give correct information about history and other service information, as well as help to promote the local tradition activities and invite tourists to join the events, etc.

3.3 Supporting the nearby communities to complete the business cultural tourism industry and to develop the variety program of product selling and cultural service as well.

4. Recommendations for next project research

4.1 Regarding to this research is concerned with Qualitative Research Methodology which emphasis on the using of research instruments and quality analyzing targeted on local people group in community, however, in real situation of cultural tourism, especially in the northern part of Thailand, there still have many more research point needed to study. Thus, for the further research, they should do further area of group case study by use the method of qualitative research combined with quantitative research to get more research points.

4.2 This research's result should be used in the form of

cultural tourism management to be tested and applied and to find clear conclusion as well.

  4.3 For further research, it should study more depth in context of problems and potential of the community which is suitable for the cultural management for more attraction and to achieve sustainability in long term.

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Healthcare Service Quality Model of Private Hospitals in Bangkok, Thailand

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Abstract— The objectives of this article are (1) to explore the perceived factors of service quality affecting the decision to use services in private hospitals, (2) to analyze the relationship of service quality models and the decision to use services in private hospitals, and (3) to develop service quality models that influence the decision to use services in private hospitals. The sample group was 400 patients who were admitted to private hospitals listed on the Stock Exchange of Thailand, by the convenience sampling method. The statistics used in this research were descriptive statistics, percentage, mean, and standard deviation. The correlation between factors was used to analyze one-way ANOVA and construct a multiple-linear regression equation by the stepwise method. The results of the research were found that 1) factors affecting the decision to use services in private hospitals consisted of 8 factors, namely service quality of doctors, service quality of nurses, service quality for diagnosis, service quality of reception, service quality to stay in private hospitals, service quality of patient foods, service quality of cleaning in patient rooms, and service quality of payments. 2) The regression equation of the service decision can have six independent variables into the regression equation. They were able to jointly explain 65.8% variation in service decision and the resulting regression equation has a variance of 0.378. 3) The results of the development of the service quality model by the multiple linear regression method using the stepwise method, the key factors were consistent with the empirical data. It has a good predictive ability with quadratic multiple correlations (R2) of 0.658 or 65.8%, which can be written as a regression equation to be a key factor in the development of the service quality model that influence the decision to use services in private hospitals.

Index Terms— *quality model, service, private hospital*

I. INTRODUCTION

Good service is what the recipients are taken care of at the quality, standard, and are widely accepted. Standard of good service is defined by the word "quality" in which the present view is different from past understanding. The original quality is determined by the service provider, but nowadays, the judgment of the quality level has been changed to the accuracy required by the recipients, which quality will occur only when the recipient is in contact or have used that product or service. If the recipient perceives what received is equal or higher than what the recipient expects, the recipient will be satisfied and will lead to telling others about the perceived quality. On the other hand, if the recipient receives a product or service that is below expectations, the recipient will not be satisfied and refuse to use them. From the changing point of view of the definition of "quality", the consumer or the recipient has become the center of the business. Service recipients are entitled to choose to purchase or not to purchase [1]. As a result, agencies, organizations, and companies, whether public or private, are active to perceive the quality of their products or services from the perspective of their recipients, respecting and responding to their preferences, needs, and values of the patients and the decision to make the approach to healthcare [2].

Currently, the health services businesses in Thailand are likely to increase market competition. In 2015, ASEAN member countries will form the ASEAN Economic Community. Advancing into the ASEAN Economic Community is an opportunity for economic growth and open opportunities for businesses that provide healthcare services, but at the same time, the impact of the ASEAN Economic Community may pose a threat to healthcare services businesses [3]. Therefore, private hospitals have to accelerate adaptation and accelerate the development of service quality to support the upcoming competition in the region and the preparation of private hospitals in Thailand to deal with more than 10 foreign funds, each with a minimum investment of US $ 5 billion. This is especially true of the formation of Integrated Healthcare Holdings Sdn Bhd (IHH), a large fund of the Malaysian government, which aims to invest in the private hospital business and was listed on the Malaysian Stock Exchange and the

Republic of Singapore Stock Exchange. Currently, Integrated Healthcare Holdings Sdn Bhd (IHH) is a hospital group with a market capitalization of 250 billion baht, which is an investment in the healthcare business with the total number 1 in the world. There are network hospitals in 6 countries: Malaysia, Republic of Singapore, Negara Brunei Darussalam, Turkey, People's Republic of China, and India, totaling 88 hospitals, with a total number of 12,000 beds, able to accommodate all ASEAN medical patients [3].

In 2012, Thailand had 3,009,169 foreigners in private hospitals, divided into 639,267 central regions, 175,534 northern regions, 89,784 northeastern regions, 208,985 south regions and Bangkok for 1,895,599 people (Table 1). Some popular services are dental treatment, plastic surgery, treatment of specific diseases such as cancer, brain surgery, heart disease, etc. [4].

Quality of Health Service in Private Hospitals Continuous improvement and development are needed. In order to increase the competitiveness and increase the quality of the recipients receiving treatment and referring to others to use the services. Healthcare lifestyle behaviors are the driving force behind private hospitals to improve service quality according to these changing behaviors. Sometimes the business operation of private hospitals cannot meet the recipient satisfaction as well as they should because of the lack of competent medical personnel, lack of impressive service, delayed service, lack of continuous quality improvement, and lack of quality of health service in private hospitals that are good and systematic. This causes each hospital to price war in order to create a decision to use services in private hospitals. This is a high investment that many entrepreneurs have suffered losses in their business operations. It eventually affects private hospital recipients that may receive poor quality health services because private hospitals may need to reduce the quality of medicines and reduce the rate of medical personnel, etc.

Therefore, this article will present the model of quality of health service in private hospitals in order to benefit the development of service quality on various sides. Including applying the results of this study to formulating marketing plans and advertising publicity to create a competitive advantage with hospitals abroad and support services for foreigners in order to make Thailand be a medical center in the ASEAN Economic Community.

II. RESEARCH OBJECTIVES

1) To survey the perceived factors of service quality affecting the decision to use services in private hospitals.

2) To analyze the relationship of service quality and decision to use services in private hospitals.

3) To develop a service quality model that influences the decision to use services in private hospitals.

III. LITERATURE REVIEW

Assael [5] gave the meaning of the perception that it is the process of a person to select, organize, and interpret stimuli until form the image of that thing. The perception of each consumer is different because perception is based on a person's needs, values, expectations that are important. Therefore, even in situations where stimuli are the same, each consumer will have different perceptions. Figure 4 shows the process of perception; there are elements of Assael, including perceptual selection, perceptual organization, and perceptual interpretation. From this idea, it was found that the processes that caused this perception are a lot of diversity, but in this study, the researchers linked cognitive processes to service quality based on Assael's cognitive thinking (1998). Zeithaml and Bitner had said that service quality is what determines the satisfaction or dissatisfaction of a consumer, which has five factors, related to the level of service quality and use it as a guideline for assessing the quality of services as follows.

1) Reliability refers to the ability to act independently of the service that the organization promises to the recipient of the reliability of the service, correct, and have the certainty of service every time, that means service recipients will be satisfied with every time they use the service.

2) Responsiveness refers to service personnel are willing to provide assistance and are ready to provide services to recipients in all matters.

3) Assurance refers to knowledge and expertise, modesty, beautiful manner in service of personnel, and competence of personnel in providing services that build trust, faith, and confidence to recipients.

4) Empathy refers to the efforts of the service provider to understand the needs of recipients and also manage to provide appropriate services, caring behavior, and understand the feelings and needs of recipients as well.

5) Tangibles refer to clearly the visible physical appearance of the premises, facilities, equipment, personnel, and communication equipment such as setting up and beautifying appropriate examination room decoration in accordance with the target audience, beautiful service provider's uniform clothing, suitable for the job description, and satisfying service recipients or decorating equipment to examine the patient's child to look like a toy in order to reduce the fear, including the availability of equipment to help facilitate various things while waiting, etc.

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In the study of the perception of service quality be able to apply the concept of Zeithaml and Bitner [6], which offers a critical factor in the perception of service quality with a model called SERVQUAL, including reliability, response to recipients, assurance of confidence to recipients, caring for recipients and being tangible. In this study of quality perception, the researcher, therefore, adheres to the concept of Zeithaml and Bitner in determining the causal variables of this study.

Panjakajornsak [7] conducted research on "A Comprehensive Model Service Loyalty in The Context of Thai Private Hospitals". This research aimed to study the relationship between service quality, service value, patient satisfaction, and service loyalty [8], as measured by the behavioral intention of customers are: repurchase intentions, positive word of mouth, positive attitude, cross-buying intention. The willingness to pay for services at the premium price level by studying in 5 private hospitals listed on the Stock Exchange of Thailand. By quantitative research. Questionnaires were used from 2 groups of subjects, group 1, 102 undergraduate students in Bangkok, and 380 samples were collected from patients in 5 private hospitals to obtain data for the questionnaire and use of service quality measurement form with SERVPERF liker scale 7 levels. The analysis of the variables was analyzed by factor analysis from 13 service quality, the remaining 4 factors and the influence of variables, two-variable correlation analysis and LESREAL program for Structural Equation Modeling. The research results were found that service quality and service value have a strong correlation of 0.93 with service loyalty of the hospital. Service quality and patient satisfaction were associated with a high level of 0.92 with service loyalty. Hospital Service quality was directly related to 0.40 relationship with loyalty on the use of services of service loyalty of private hospitals.

It can be concluded that perception is the process of individuals examining their interests. To help make decisions about getting various services to achieve satisfaction with the service. Which in this research concluded the good service is a guideline that everyone must receive from the healthcare facility that they attend.

IV. Research method

This research was survey research. The population used was the patients who were hospitalized in private hospitals listed on the Stock Exchange of Thailand.

The sample used in this study was hospital patients who were registered in the Stock Exchange of Thailand. In September 2013, 384 samples were determined from the unidentified samples of W.G. Cochran. [9] The researcher then collected 400 samples. Using multistage random sampling, the researcher performed a simple random sampling by random sampling of 16 private hospitals listed on the Stock Exchange of Thailand [10]. The number of questionnaires was randomly conducted at 4 locations: Krungthon Hospital (KDH), Ramkhamhaeng Hospital (RAM), Samitvej Hospital (SVH), and Vibhavadi Hospital (VIBHA). This was divided by quota and collected data with samples in each location by convenience Sampling.

The research tool was a questionnaire which was divided into 3 parts and 9 variables were used in the study as shown in Table 1.

Table 1 Research variables

Independent variables	Dependent variables
Perception of service quality of doctors (X1), Perception of service quality of nurses (X2), Diagnostic Quality Perception (X3), Receptionist Quality Perception (X4), Perception of quality of occupancy in private hospitals (X5), Perception of food quality of patients (X6), Perception of room care quality (X7), Perception of payment quality (X_8)	Decision to use services (Y1)

The statistics used in this research were descriptive statistics, namely percentage, mean, and standard deviation. The statistics used to find the quality of the questionnaire were based on Cronbach's alpha coefficient (α - Coefficient). Confidence test result α = 0.908. The reference statistic was used to find the correlation between factors using a One-Way ANOVA analysis, which determined a level of confidence that was significantly less than 0.05. Analysis of factors influencing the decision to use services in private hospitals, tested by multiple regression analysis (MRA) using stepwise.

V. Research results

1. Factors for the perception of service quality affecting the decision to use services in private hospitals including service quality of doctors, service quality of nurses, service quality for diagnosis, service quality of reception, service quality to stay in private hospitals, service quality of patient foods, service quality of cleaning in patient rooms, and service quality of payments, from figure 1.

Figure 1: Service quality affecting the decision to use services in private hospitals

2. Analysis of the relationship of service quality and decision-making in private hospitals by using the One-Way ANOVA method, which determined the confidence level that was significantly less than 0.05, it was found that the factors correlated with the decision to use services in private hospitals consisted of eight factors. The test results are shown in Table 3.

Table 2 Factors related to the decision to use services in private hospitals

Factors	F	Significant	Result
Service quality of doctors	78.748	.000	Accept
Service quality of nurses	88.741	.000	Accept
Service quality for diagnosis	51.033	.000	Accept
Service quality of reception	188.780	000.	Accept
Service quality to stay in private hospitals	90.847	000.	Accept
Service quality of patient foods	25.604	000.	Accept
Service quality of cleaning in patient rooms	122.693	000.	Accept
Service quality of payments	109.652	000.	Accept

3. The results of the development of the service quality model using the multiple linear regression equation by the Stepwise method. The key factors were consistent with the empirical data. It has a good predictive ability with quadratic multiple correlations (R^2) of 0.658 or 65.8%, which can be written as a regression equation to be a key factor in the development of the service quality model, that

influence the decision to use services in private hospitals as follows.

Service decision = .308, receptionist +.231, paid service +.169, patient room care +.144, doctor's service +.144, private hospital stays; +.108. Patient food service; R^2 = 0.658, SE = 0.378. From the regression equation discovered above. Therefore, it can be written as a new quality model of health service in private hospitals (HSQ Model) from Figure 2.
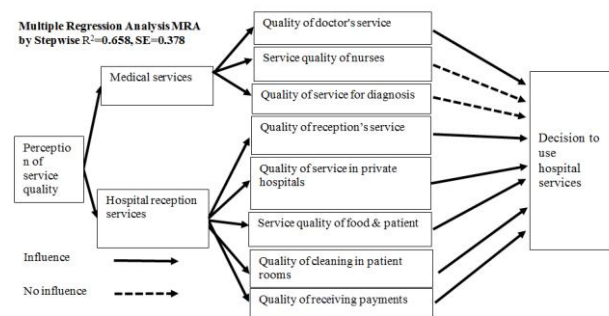
Figure 2: Model of service quality influencing decision to use in Private Hospitals (HSQ Model)

VI. ADDITIONAL RESEARCH RESULTS

1. Personal information of private hospital users found that most of the sample were male than female. Accounted for 59.20 and 40.8 percent, respectively, aged 36 - 45 years or 45.6 percent were self-employed accounted for 27.5 percent have a bachelor's degree representing 45.2% and having monthly income between 30,001 - 40,000 baht or 41.6%.

2. Analysis of factors related to the decision to use hospital services. It was found that the factors affecting the decision to use services in private hospitals consisted of 8 factors: service quality of doctors, service quality of nurses, service quality for diagnosis, service quality of reception, service quality to stay in private hospitals, service quality of patient foods, service quality of cleaning in patient rooms, and service quality of payments.

3. Regression equation using Stepwise method to be an important factor in the development of service quality models that influence the decision to use services in private hospitals. By using the independent variables into the equation of 8 variables, the regression equations of the service decision were obtained 6 independent variables were added to the regression equation, namely service quality of doctors, service quality of reception, service quality to stay in private hospitals, service quality of patient

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foods, service quality of cleaning in patient rooms, and service quality of payments, which the regression equation obtained they could jointly explain 65.8% variation in service decision and the resulting regression equation has a variance of 0.378.

VII. DISCUSSION OF RESEARCH RESULTS

The results of the research showed that important factors affecting service decisions. It consisted of 6 variables: service quality of doctors, service quality of reception, service quality to stay in private hospitals, service quality of patient foods, service quality of cleaning in patient rooms, and service quality of payments [1]. These variables are an important factor affecting perception and decision making as research has found that perceptions of the quality of their products or services from the perspective of their recipients [2]. It is important to respect and respond to patient preferences, needs and values, and decisions about clinical guidelines, which offers a critical factor in the perception of service quality with a model called **SERVQUAL**[6] including reliability, reliability Response to service recipients, assurance of confidence to recipients, caring for service recipients, and being tangible.

Therefore, good service is a guideline that everyone must receive from the hospital that they serve to make an impression have confidence in service or trust and be trusted to serve next time.

VIII. SUGGESTION

1. There should be studies and development of service quality models and other additional factors.

2. There should be further studies and development of the service quality model of government and private hospitals.

3. There should be studies on marketing strategies. To know the weaknesses and strengths and the data from the aforementioned study will be used to further improve the weaknesses and strengthen the strengths of private hospitals.

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Marketing Activity Models Affecting Behavior of Social Media Detox Groups in the Bangkok Metropolitan

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Abstract— The purpose of this research is to study patterns of marketing activities that affect behavior of social media detox group which variables consist of demographic characteristics motivation factors, behavioral science factors, cognitive factors, and interest factors. In this research, a descriptive research study was conducted. The sample used in this research was the populations of Bangkok Metropolitan with social media detox behaviors of 400 people. Using the sampling method, which is cluster random sampling. The use of survey tools for data collection was by questionnaires. The research results were found that most of the respondents were female, aged 34-42 years with a bachelor's degree, occupation as a private company employee earning an average monthly income of 10,000-20,000 baht. The reason for a social media detox is to spend free time with family or peers. The reason to choose an alternative social media detox app as a way to find inspiration. An alternative app format for social media detoxes group because it is a motivational application. Internal stimulus that influences the motivation of a social media detox is because of emotional and emotional balance. External stimulus that influences social media motivation to detox is because of the changing technology. How to do a social media detox of a social media detox group is to look for other activities instead of choosing to view products or services on the ads of the social media detox group, choose to view products that search about Food / Drink. Most social media detox group of online advertising perception channels are perceived through social media. Most of the social media detox channels of online advertising perception are through television. Friends are the influencers of social media detox advertisement viewing. Reasons to watch social media detox advertisement as a guide to making decisions before purchasing alternative applications that social media detox groups have as an entertainment application. The survey takers spent the night (7.01 p.m.-11.00 p.m.) using an alternative application of the social media detox group. The usage period of the alternative social media detox application is 30 minutes-1 hours. The frequency of use of alternative social media detox applications is less than 10. Online advertising is affecting the behavior of detox social media group. Various applications offline advertisement is predominantly from the television. The use of sales representatives had the greatest effect on the behavior of social media detox group. Social and environmental responsibility activities have the greatest impact on the behavior of the detox social media group. Direct marketing using internet media can influence the behavior of social media detox groups. The sale/ giveaway will help promote sales, and the choice of entertainment applications will be able to generate the interest of the detox social media group.

Index Terms— Marketing Activity, Behavior, Social Media Detox, Bangkok Metropolitan

I. INTRODUCTION

In 2020, the decelerating economy of Thailand has been a critical issue. It has great effects on business operation and brand communication. This year's ad spending is likely to be balanced, but one thing to keep an eye on is the growth of advertising in digital media. The coverage of internet access in Thailand is at a constant level which means the advertising reach rate can reach consumers comprehensively.

One of the social media platforms' missions at the end of the year may be to bring forward the "trend" of next year, which Pinterest has also avoided with the recent release of the Pinterest 100 and top 10 trending by 2020. It is important to note that the next generation of people are focused on balancing life, ranging from being alone happily, using art therapy, music that helps you get good, healthy food, and detoxing to get out of social media with a 314% increase. [1]

Nowadays, everything is tied to technology, despite its benefits, but too much is also causing blame. By 2020, it will be called therapy for people who are addicted to social media too much. There are many celebrities who use this method to heal themselves by announcing their break from social media. For example, Selena Gomez, Ariana Grande, Gigi

Hadid, Ed Sheeran, etc. [2]

Based on the data studied, consumers still want social media but instead change the platform which has also affected social media communication. Facebook, Twitter and Instagram tend to be the main platforms that are business-friendly to consumers. However, many users are tired of these core platforms. Meanwhile, brands will have to fight harder than ever before. To achieve better reach and engagement for your target audience.

Since the app launched in 2016 and grew in 2019, many users flock to the new platform. Today, it has about 500 million users per month and has more than 1.1 billion registered users. However, we understand that TikTok is not a good option for brands or business-related people, but brands that are business with consumers. The audience is between the ages of 16 and 24, which is an attractive option, as 41% of users of the app are a new generation focused on driving user engagement. For social media, another platform to keep an eye on next year's e-commerce is "Pinterest," a few interesting mediums, perhaps not new, but the resurgence of Pinterest has been used to find a lot of inspiration such as cooking recipes, fashion, makeup, hair styles, manicure, photography, travel, aesthetics, etc. Pinterest has become a space to inspire audiences to search on search engines or on the Pinterest to make them want to follow, and then import sales links to the platform e-commerce site. [3]
Based on the size of those who pay attention to life-saving social media detox. Therefore, it is important to study appropriate marketing activities and access to social media detox group. To develop and guide communication with social media detox group. The research team conducted research on marketing activities affecting the behavior of social media group detoxing users of alternative platforms like Pinterest, TikTok or other alternative platforms aged 16-24 in Bangkok and the metropolitan area. It is hoped that this research will enable businesses to adapt their marketing activities to raise awareness and become the right interest for social media consumers.

II. RESEARCH OBJECTIVES

2.1 To study demographic characteristics that affect perception through marketing activities of social media detox group

2.2 To study the motivation factors of alternative ad communication applications affecting social media group Detox

2.3 To study the behavioral factors affecting interest in social media group ads

2.4 To study the appropriate marketing activities for social media detox group

III. BENEFITS OF RESEARCH

3.1 To develop and improve the nature of marketing communication that is appropriate for social media detox group

3.2 To generate interest and attract audiences through marketing communications that are appropriate for social media detox group

3.3 To support the way marketing communication with social media detox group may be greater in the future

IV. RESEARCH METHODOLOGY

This study will study the population of people who have reduced their social media use. Under 16-60 years old in Bangkok metropolitan area during the study period from June 17, 2020 to June 30, 2020. In this research, a descriptive research study was conducted. The sample used in this research was the populations of Bangkok Metropolitan with social media detox behaviors of 400 people. Using the sampling method, which is cluster random sampling. The use of survey tools for data collection was by questionnaires.

V. SUMMARY OF THE FINDINGS

5.1 Demographic Factors
The sex of the social media detox group living in Bangkok and its vicinity. The majority were female, 60.50%. The age of the social media detox group living in Bangkok metropolitan area and its vicinity. The majority were 34 to 42 years old, 26.00 %, aged 25 to 33 years old, 24.00 % and 16 to 24 years old, 87.00% respectively. The majority of participants were undergraduates, representing 46.00% below bachelor's degree/high degree. 41.80% and 49.00% postgraduate, 12.30% respectively.
The career of a social media detox group living in Bangkok and vicinity. The majority were private company employees, representing 28.50% independent occupations. 24.50% students and 14.50% of private business,

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respectively. The majority of the participants had an income between 10,000-20,000 baht.

5.2 Motivation Factors

Reasons for social media detox of detox social media groups living in Bangkok and metropolitan areas. This study found that the majority spend free time with family or those around them. 24.50% of health trends and life balance. 20.00 % to build confidence by not comparing themselves to others on social media. The reasons for choosing an alternative social media detox application, it was found that most of them were finding inspiration in their life for something they are interested in equivalent to 26.80%, secondly was entertainment channel, 26.00 % and thirdly were updating their life or images on social media, 19.50 %.

An alternative application for social media groups, found that most entertainment apps representing 34.50% of applications to inspire. 16.80% are skills training applications and 8.50% are health applications, respectively.

Internal stimuli influence the motivation of social media detox, a social media detox group that lives in Bangkok and its vicinity. It was found that most of them have emotions and feelings for balancing life. 39.30 % of people are suffer from fatigue and stress on social media and 37.80 % of whom were social media boredom.

The external stimuli influence the motivation of social media detox found that the majority of participants had a life balance represented by 21.80% of the changed technology, 17.80% of whom accounted for social and cultural environments. 16.30% are political law, and 15.30% are natural environment by respectively.

5.3 Behavioral Factors

The way to make social media detox of social media detox groups living in Bangkok and metropolitan areas, found that most of the other activities were done instead. 36.00% of social media attitudes were adjusted, representing 17.00% signed off from the main application, 12.00% off the phone, who cast friends on social media and 6.30 % living slow life by respectively. Choosing to watch products or services on social media detox group social media ads in Bangkok and metropolitan areas, the majority of food/ beverages were found to be 20.30%, clothing/ accessories were 63.00% and tour/ accommodation are 15.80%. The channel of awareness Social Media Detox were found that the majority of social media were 22.30 %, applications were 21.00 % and Google ads were 19.50% by respectively. For Social Media Detox Group's Online Ad Awareness Channel lives in Bangkok metropolitan area, it found that the majority of televisions were 42.50%. Billboards were 19.30% and magazines were 8.50% by respectively.

The social media detox group's advertising influencers live in Bangkok and its vicinity. It found that the majority was

friends, 36.50%, Secondly was artists/celebrities, 26.80% and Thirdly was professionals, 20.30%.

The reasons for choosing to watch social media detox social media ads in Bangkok and metropolitan areas. Most of the findings are found to guide decisions before buying. That were 28.70% of the data can be received quickly. Easy to accessibility all the time were 28.50%. The modernize of goods or services were 22.50% by respectively. For the most of alternative applications that detox social media groups were used was entertainment apps, representing 33.30%, The second was inspiring applications, 17.80% and health applications, 49.00 % by respectively.

Social Media Detox Group's period is in Bangkok and its vicinity. The majority of Night time period was the most people consume the alternative application for Social Media Detox, at 32.30%, in the evening (16.01- 19.00) was 13.30% and in the morning was 12.80% by respectively. The duration of the social media detox social media group's alternative application period is in Bangkok and its vicinity. This research found that the majority of 30 minutes, 38.50%, more than 1 hour were 22.50% and more than 2 hours were 21.00% by respectively.

5.4 Interesting Factors

The impact of online advertising medias that the most affect to behavior of social media detox groups were ads sharing, 27.50%. Secondly was Google Ads, 18.30%. The thirdly was ads on the site, 17.30%, by respectively. For the impact of offline advertising medias that the most affect to behavior of social media detox groups were the number of televisions, 41.50%. The second was newspapers, 15.00%. The third was radios 9.50% by respectively.

The majority of social activities affect to the behavior of social media detox was social and environmental responsibility Activities, 21.50%. The charitable donations, 20.30% and the proceeds from sales and social advocacy activities, 66.00% by respectively. For direct marketing factor, it found that the internet media was the most affects to behavior of detoxing social media, 87.00%. Postal/email was 21.80%, and sales representative was 11.50%. For alternative application, this study found that entertainment applications were the most affects to the behavior of social media detox, 30.30%, applications for inspiring were 25.00% and travel applications were 20.80% by respectively.

VI. SUGGESTION

Based on the results of this research on marketing activities affecting the behavior of social media detox groups in Bangkok and its vicinity. This makes it possible to know the marketing activities that affect the interest of social media groups and the user groups of alternative platforms in various areas. Therefore, the Research Faculty will conclude the recommendations as follows:

6.1 Motivation Factors

6.1.1 According to the results, respondents needed to spend their free time with their families. Therefore, marketing activities should focus on engaging and building relationships with family members.

6.1.2 According to the results, respondents opted for an alternative social media detox application as a way to inspire the majority of interests. It shows that the Social Media Detox Group needs a channel for awareness through alternative applications. Therefore, alternative application manufacturers should produce and present content to communicate with the Social Media Detox group in a creative way that can inspire the Social Media Detox group.

6.1.3 Different ages are associated with internal stimuli that influence motivation in social media detox. Younger than 16 years old can be motivated by emotions and feelings of balancing life. 16-24 years old, 25-33 years old, 34-42 years old and 60 years old, can be motivated by fatigue and stress from social media use, with ages 43-51 and 52-60 years of age able to be motivated by emotions and feelings of balancing their lives. Also, 52-60 years old can be motivated by social media boredom. Therefore, business should bring internal stimuli to motivate and be consistent in each of the ages mentioned above.

6.2 Behavioral factors

6.2.1 According to the results, the respondents had the most online channels of awareness, social media and the most offline channels were televisions, so the meat they wanted to offer should focus on both channels to reach the social media detox group as much as possible.

6.2.2 According to the results, respondents opted for a purchase or service with a friend who was advising them to make decisions. It shows participation in decision-making with those around you. Therefore, it is best to set up a strategy that can drive up to 2 or more purchases, such as join 4 pay 3 promotion etc.

6.2.3 According to the results, respondents opted to use alternative applications within 30to 1hours, so manufacturers and developers of alternative applications should develop uncomplicated applications. It can be easy to use to suit your application time. Alternative Applications of Social Media Detox Group

6.2.4 Different genders are associated with the choice of viewing products or services on social media detox groups, where males and females should communicate food/beverage products or services, so businesses should communicate products or services on ads with interests in each gender to create appropriate access as mentioned above.

6.2.5 Different genders are associated with influencers in social media detox social media ads, where both males and females are influenced by social media detox ads. Therefore, businesses should choose the influencers representing each gender to play a role in communicating

through ads in order to align communication with social media groups, detox in each gender as mentioned above.

6.2.6 Different age is associated with the choice of watching products or services on social media ads, detox, which is less than 16 years old and 43- 51 years old, books/stationery equipment, 16-24 years old should offer food/ drinks, age 25-60 years old, food/drinks and books/ stationery equipment, age 34-42 years old, clothing/accessories should be presented, age 52-60 years old. Over the age of 60, travel/ accommodation, home goods and health and beauty should be offered, so businesses should offer products to generate interest at each age range to create appropriate access as mentioned above.

6.2.7 Different studies have been correlated with how social media detoxes of social media detox groups. Lower education or equivalent secondary/secondary education There is a way to do social media detox: find other activities to do instead. Therefore, how to do social-media detox should design a method in accordance with the level of education mentioned above.

6.2.8 Different studies are correlated with the choice of viewing products or services on ads of social media detox groups, which Lower education or secondary/secondary education There is a selection of products or services on the broadcaster, most of which are clothing/accessories. Bachelor's or postgraduate studies are the most popular choices on food/beverage products, so businesses should communicate products or services by advertising them to suit different levels of education as mentioned above.

6.2.9 Different studies are associated with the online ad awareness channels of social media detox groups, where education is lower or comparable to secondary. There are online ad awareness channels: Google ads, undergraduate studies, online ad awareness channels, apps and social media. Postgraduate education has an online advertising awareness channel, social media, so businesses should choose online advertising channels to suit different levels of education as mentioned above.

6.2.10 Different studies were associated with influencers in social media-detox advertising, both lower education or secondary/secondary and postgraduate studies. They have influencers to watch ads, friends and artists/celebrities, so businesses should choose who are the authors at each level of education to play a role in communicating through ads in order to align communication with social media detox groups at each level of the study, as mentioned above.

6.2.11 Different studies are associated with alternative applications that the social media group detoxes use, which is lower education or secondary / secondary equivalent. There is an alternative application to use: skill training application. There are alternative applications available: entertainment apps, so businesses should choose alternative apps to bring attention to the social media detox groups as mentioned above.

6.2.12 Different studies are correlated with the time period of use of alternative social media detox apps. Lower education or equivalent secondary/secondary education There is a time to use alternative applications in the evening (16:01 pm.-19:00 pm.). There is a period of time to use alternative applications during the night (7:01 pm.-10.00 pm.), so businesses should choose to communicate their products and services at the appropriate time for the above level of study.

6.2.13 Different studies are associated with the duration of the use of alternative social media detox applications, either lower education or secondary/secondary education equivalent. The time period of use of alternative applications is 30 minutes to 1 hour. Businesses should create awareness within a limited time with an ad strategy of just 15 seconds or 30 seconds.

6.2.14 Different professions are associated with social media detox methods of social media detox. Students, private companies, civil servants, private businesses, freelancers, and so on. Therefore, it is important to organize activities where consumers can participate in marketing activities.

6.2.15 Different occupations are associated with alternative apps that detox social media groups use. Student & Private Business There is an alternative application to use, an application to inspire. Private companies, civil servants, freelancers and others have an alternative application: entertainment applications, so businesses should choose a communication channel to suit each of the professions as mentioned above.

6.2.16 Different income is associated with alternative social media detox apps, which are under 10,000 baht. Revenue 20,001-40,000 Baht, revenue 40,001-50,000 Baht and more than 50,000 baht, there is an alternative application that is used: entertainment app, so businesses should choose the right communication channel for each of the above income levels.

6.3 Opinion factors

6.3.1 According to the results, the respondents had the idea that the level of salespeople, direct marketing, and marketing promotions to invite them to reduce the current level of social media use was minimal. Therefore, businesses should cut or reduce the number of channels selected by respondents to reduce communication costs and further develop to increase the efficiency of access to social media detox groups.

6.4 Interest factors

6.4.1 Based on the findings, although respondents currently use social media as a channel for awareness, social media-detox groups are most interested in online ads on various applications, so businesses should produce content that communicates through a larger number of applications in response to the interests of social media detox groups.

6.4.2 Based on the results, the respondents were interested in social and environmental activities. Therefore, activities and content created to raise awareness for social-media detox groups should be an engaging issue with a focus on society and the environment.

6.4.3 Different studies are associated with online advertising that affects the behavior of social media detox groups. Lower education or equivalent secondary/secondary education Online advertising that affects most behaviors is Google ads, undergraduate and postgraduate. Online advertising that affects most behaviors is social media, so businesses should choose the right online communication channel for each study level as mentioned above.

6.4.4 Different studies are associated with offline advertising that affects the behavior of social media detox groups, which are either lower education or secondary/secondary equivalents. Bachelor's degree and postgraduate Offline advertising that affects most behaviors is television, so businesses should choose television advertising channels to suit consumer behavior.

6.4.5 Different studies correlate with direct marketing that affect the behavior of social media detox groups. The most effective direct marketing studies are catalogue media, undergraduate and postgraduate. Direct marketing that affects most behaviors is internet media, so businesses with interests who want to use direct marketing to communicate with consumers. Direct marketing materials should be used to suit the appropriate education as mentioned above.

6.4.6 Different income is associated with online advertising that affects the behavior of social media detox groups. The company is interested in online advertising through google advertising channels, revenue of 20,001-40,000 baht and revenue 40,001-50,000 baht. In addition, earnings greater than 50,000 Baht are interested in online advertising through various application channels, so businesses should choose the right online communication channel for each income level as mentioned above.

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Entrepreneurship Education: New Strategies in Unemployment during the Economic Crisis of Thailand

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Abstract— The study aims to develop a structural equation model of entrepreneurship education during the current unemployment crisis of Thailand by using mixed methods approach. In part of quantitative research, the research tool was questionnaires. Data were collected from 420 samples. Structural Equation Modeling (SEM) was conducted for analyzing the model with empirical data. In part of qualitative research, the key informants was 5 person. Data gathering conducted by in-depth interview which were semi-structured interview. The major findings showed that factors that affect the entrepreneurship education were institutional setting, contents of course, teaching methods and individual factor. Considering the structural equation model of entrepreneurship education during the current unemployment crisis of Thailand had a good fit with the empirical data (χ^2=556.45, df=213, RMSEA=0.054, CFI=0.95, SRMR=0.068). Teaching methods had the highest direct effect on entrepreneurship education, while institutional setting had the highest indirect effect. This new framework can be used to inform thinking in the area of entrepreneurship education to address the unemployment crisis.

Index Terms— Entrepreneurship Education, Unemployment, Economic Crisis

I. INTRODUCTION

In order to meet the occurred from the impact of Covid-19 on the economy through both direct (generated by domestic lockdown) and indirect (supply and demand shocks in supply chains, including tourism) channels is likely to be severe. The impact on workers within the impacted sectors will come in the form of reduced working hours and wages or even complete jobless. The public sector will need to adjust its solutions towards more consistent support of the most vulnerable and in consideration of mid to long-term COVID-19 recovery objectives [1]. Entrepreneurship has long been offered as the panacea for poor economic growth and high rate of unemployment. In many countries, the rate of population growth oversteps employment growth, necessitating the need to promote entrepreneurship as a means of creating employment and alleviating poverty [2] [3] [4].

Policymakers emphasized the importance of start-ups and encouraged college and university students to engage in entrepreneurship endeavors by promoting entrepreneurship education to address unemployment. A major assumption in these developments is that entrepreneurship education increases students' career prospects and employability, either through enabling them to become self-employed persons or through increasing their potential value as more

enterprising employees. Consequently, lots of efforts are being put into advancement of entrepreneurship education in formal university curriculum [5] [6].

Although there is considerable consensus on the importance of entrepreneurship education until recently there has been no systematic investigation of the relationship of entrepreneurship education and unemployment [7]. It must be studied by empirical testing to implement theoretical entrepreneurship education concepts in practice.

According to the unemployment rate of Thai people which remained high and the working hour of employed people which constantly decreased will affect the income and other factors of households. New graduated, young and high levels of education workforces are still unemployed. In Q3/2020, there were 7.4 hundred thousand unemployed persons. This was equal to 1.90 percent of unemployment rate that was similar to the previous quarter at 1.95 percent, which was during a severe COVID-19 pandemic. Young and high level of education workforces were the majority of unemployed persons. Considering the unemployment rate by the level of education, it was found that the undergraduate degree had been the highest among other levels. Whereas the unemployment rate of workforces aged between 15-19 years old and 20-24 years old had risen to 9.4 percent and 7.9 percent respectively during this quarter as well. It indicated that young and high level of education workforce was the

group that needed a continual care [8]. As mentioned before, Thailand is currently experiencing rapid growth in terms of its unemployment and consequently the complexity in terms of the administration to address the need to the young and high level of education workforce requires immediate attention.

Consistent with these points, to achieve promote a more flexible labor market may help mitigate the consequences and help to increase workers, promotion of entrepreneurship skills development for both new graduates to be ready to work and those who have already worked or have a job to have more skills or to have new skills that will enable future entrepreneur is necessary [8] [9].

Many universities have introduced entrepreneurship education to promote the interest of under graduates to becoming future entrepreneurs [10] [11] [12]. Despite the exposure to entrepreneurship education in Thailand Universities, many graduates still find it difficult to be gainfully employed for a long time after graduation. Entrepreneurship education to which students are exposed to on campus seems not to be a workable solution to unemployment [13] [14]. Most recent college and university graduates fall in this category and it is becoming increasingly necessary to get more and more of them to engage in self-employment. There is need therefore to find out the factors affecting entrepreneurship universities in Thailand. This is largely because there is lack of significant research in the area for sustainable economic growth to which employment is a part. A standard and culturally-based model for entrepreneurship education during the current unemployment crisis of Thailand needs to be established.

By conducted research in southern part of Thailand, as the south is a multicultural region, racial and religious. The entrepreneurship education implementing by providing opportunities for all sectors to participate in problem solving based on the concept of entrepreneurship education, which lead to achieve of implementation for unemployment that would be matched up with the way of life in the characteristics of that area. This would result in high quality engage in self-employment in southern part of Thailand.

II. RESEARCH OBJECTIVES

The objectives of this research article were 1)identify factors influencing entrepreneurship education during the current unemployment crisis in Southern of Thailand, and 2) to develop a structural equation model of entrepreneurship education during the current unemployment crisis in Southern of Thailand.

III. RESEARCH METHODS

A. Research Design

This study used a mix-method approach as its research methodology in type of convergent parallel design [15].

Convergent parallel design mixed methods is to provide a comprehensive analysis of the research problem by converges or merges quantitative and qualitative data the research problem by converges or merges quantitative and qualitative data. The researchers collect and analyze two independent strands of quantitative and qualitative data in a single phase. The quantitative strand, the research tool was five-point Likert scales questionnaires. Data were collected from 420 undergraduate students in higher education institutions in the southern of Thailand who will graduate and entering the labor market in 2021. Structural Equation Modeling (SEM) was conducted for analyzing the model with empirical data. Data analysis was conducted by using descriptive statistics to analyze the basic statistics of variables to create a correlation matrix. Then, construct validity, construct reliability, and average variance extracted were performed by confirmatory factor analysis. Path analysis to determine the good fit with the empirical data of structural equation model. The qualitative strand, the key informants was 5 people from a group of graduates entering the labor market, university, labor government officials, entrepreneur, and academics who are involved in labor operations. Data gathering conducted by in-depth interview which were semi-structured interview.

B. Research Process

Research process of this research has developed into 3 steps consisted of preparation, procedure, and conclusion results. Steps were shown in Fig. 1.

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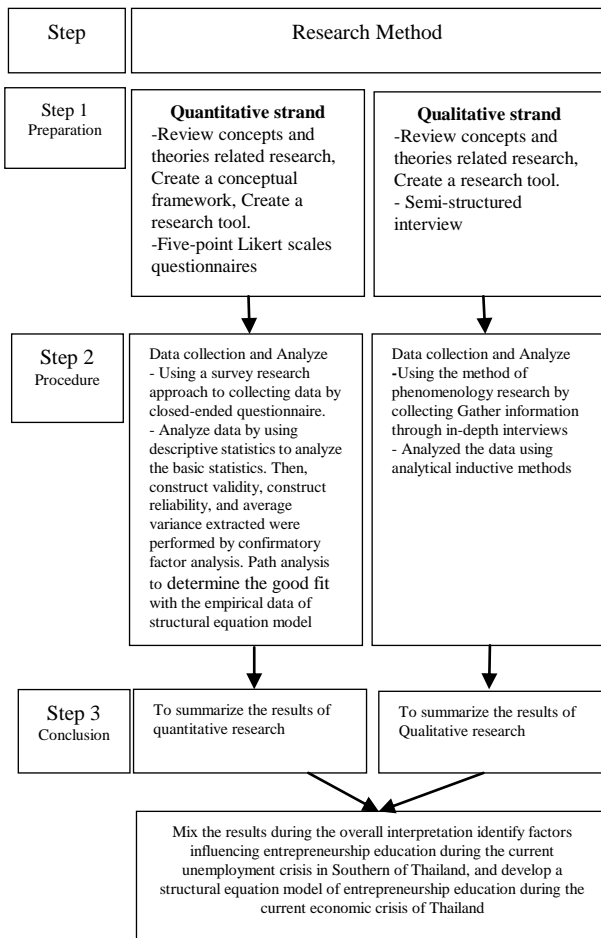
Fig.1 Research process for the develop a structural equation model of entrepreneurship education during the current unemployment crisis in Southern of Thailand

IV. RESULTS

Structural model

The overall fit of the structural model was good, with $\chi^2=556.45$, df=213, RMSEA=0.054, CFI=0.95, SRMR=0.068). As a result of this, in the current study, it could be said that model shows fit to all data. Standardized path coefficients (direct, indirect and total effects) are calculated for all the variables that were in the model. The results of the analysis are demonstrated in Table 1. Path coefficients of alternative model are shown in Fig.1

Table.1 Standardized path coefficients (direct, indirect and total effects) in the Structural Model

Dependence variable	Pathway	Independence variable			
		Institutional setting	Contents of course	Teaching methods	Individual factor
Contents of course	DE	0.13**	-	-	-
	IE	-	-	-	-
	TE	0.13**	-	-	-
Teaching methods	DE	0.20*	0.18**	-	-
	IE	0.12*	-	-	-
	TE	0.32*	0.18**	-	-
Entrepreneurship education	DE	0.55**	0.43**	0.61**	0.30*
	IE	0.31**	0.11**	-	-
	TE	0.81**	0.53**	0.61**	0.30*

*p<0.05, **p<0.01, DE=Direct Effect, IE=Indirect Effect, TE=Total Effect

The model confirms that 4 factors: Institutional setting, contents of course, teaching methods, and individual factor possessed effects on entrepreneurship education. Teaching methods had the highest positive direct effects on entrepreneurship education, followed by institutional setting, contents of course, and individual factor with the standardized path coefficients of 0.61 0.55 0.43 and 0.30 respectively. While institutional setting had indirect effect on entrepreneurship education with effect sizes 0.31, which teaching methods as a mediator. Besides, the contents of course also had positive indirect effect on entrepreneurship education with effect sizes 0.11. The hypothesis testing of direct effect between latent variables in the model, it was found that 6 hypotheses were accepted.
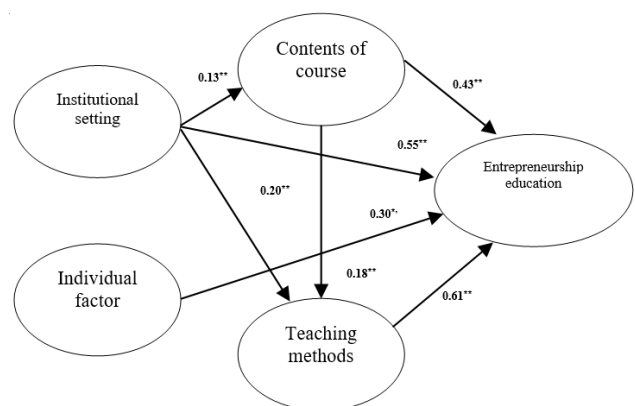
Fig.2 structural equation model of entrepreneurship education during the current unemployment crisis in Southern of Thailand

Quantitative and qualitative data analysis results

The results of the quantitative and qualitative data analyzes in the blended approach research showed that there were 4 factors influencing the entrepreneurship education during the current unemployment crisis of adolescents: institutional setting, contents of course, teaching methods,

and individual factor. The results of the analysis are demonstrated in Table 2

Table.2 A comparison of the data analysis of quantitative and qualitative factors that influence entrepreneurship education during the current unemployment crisis in Southern of Thailand

factors influencing entrepreneurship education		The results of the analysis	
		Quantitative	Qualitative
Institutional setting		had the positive direct effects with the standardized path coefficients of 0.55 at the significance level of 0.01 and had indirect effect on entrepreneurship education with effect sizes 0.31,which teaching methods as a mediator.	Labor and education professionals focus on entrepreneurial education; it is believed that the entrepreneurship education to be able to solve the problem of unemployment the context of the educational institution is very important. "Before making the entrepreneurship education success must be start with the support of the institution such as organizational culture and structure come first".
Contents of course		had the positive direct effects with the standardized path coefficients of 0.43 at the significance level of 0.01 and had indirect effect on entrepreneurship education with effect sizes 0.11, which teaching methods as a mediator.	Students get to know what makes them become entrepreneurs depends on the knowledge of entrepreneurial program with complete learning content. "Before thinking about doing any business we also need to know first what knowledge we need to learn and have to disciplinary".
Teaching methods		had the positive direct effects with the standardized path coefficients of 0.61 at the	Teaching methods employed in delivering the content of an educational program and how

factors influencing entrepreneurship education		The results of the analysis	
		Quantitative	Qualitative
		significance level of 0.01	effective they are. "If university have to success in entrepreneurship education, they will not teaching by lectures only. They have to concern embeddedness in active and innovative region."
Individual factor		had the positive direct effects with the standardized path coefficients of 0.30 at the significance level of 0.05	What will make them able to become to self-employment intention or not depends on self-efficacy and attitude towards entrepreneurship. "The completion of entrepreneurial education it is not from the institution only, but from the individual factor of how they think about entrepreneurship and he has to believe in his own abilities as well."

V. DISCUSSIONS

Teaching methods

Teaching methods had the highest positive direct effects on entrepreneurship education during the current unemployment crisis of Thailand due to academic entrepreneurship does not involve a single event, but rather a continuous process composed of a series of events. A deeper understanding of academic entrepreneurship can, therefore, be achieved through a multi-step process that identifies the actors, activities and key success factors associated with each stage of the process. That is why university must work on each of the stages of the entrepreneurship education process [16].

Institutional setting

Institutional setting had the highest positive total effects on entrepreneurship education. General institutional

(university) strategies have to joy relation to entrepreneurial activities in the regional environment and its importance for entrepreneurship education, thus positioning the university as a key contextual element in itself. Universities are affected by the regional governance and institutional economy. Additionally, university policy including institutional governance and leadership, organizational culture, strategy and purpose, and institutions' approaches to the commercialization of research and technology relating to the university and programme context are all influential context elements framing entrepreneurship education [16].

Contents of course

Contents of course had the positive direct effects on entrepreneurship education due to students get to know what makes them become entrepreneurs depends on the knowledge of entrepreneurial program with complete learning content. Entrepreneurship skills aim to tackle the barrier of lack of entrepreneurial knowledge, skills and attitudes and entrepreneurship experience. They equip student with skills and competences such as opportunity recognition, business planning, including soft skills such as sense of initiative, creativity, autonomy and teamwork. These skills and competences will be beneficial for their own (future) business or for working as an employee, while also helping young people become more aware of self-employment as a career option [17].

Individual factor

This factor had the positive direct effects on entrepreneurship education. Additionally, individuals with high independency self-efficacy and attitude towards entrepreneurship, groundbreaking behaviors and risk appetite are able to suggest and implement new ideas to achieve the entrepreneurship education goals. The completion of entrepreneurial education it is not from the institution only, but from the individual factor of how they think about entrepreneurship and he has to believe in his own abilities as well [18].

VI. RECOMMENDATIONS

A. Recommendations for Practices

1. Institutional setting had the highest positive total effects on entrepreneurship education. Universities need to focus on entrepreneurship educational design, in order to stimulate self-employment such as facilities required to effectively facilitate entrepreneurial learning in the university such as classrooms, vocational skill centers, business incubator – what the center does to support for student entrepreneurial initiatives. The institutional setting also encompasses management support –funding for

entrepreneurship research – whether funds are provided to further entrepreneurship within the university.

2. Teaching methods is very important factor influencing entrepreneurship education. Today, any education system should prepare students to work in a rapidly changing, dynamic, entrepreneurial and global environment by fostering the skills, attributes and behaviors that students need to improve both creative and critical thinking. This new scenario requires a paradigm shift for the academic world that should incorporate new teaching methodologies. Entrepreneurship education professionals should be able to create an open environment in which students develop the confidence to take risks and learn from their successes and failures. Active learning, Project-based learning, problem-based learning, real-life situation, case studies, gamification, service learning, participation in real projects and work placements in companies or organizations are all active methodologies that can foster the development of entrepreneurship

3. Contents of course is important factor influencing entrepreneurship education. Students should learn about business planning and accessing start-up financing through the setting up of simulation or real business enterprises. It is important for students to gain the basic skills for starting and operating a business. However, there has an increasing trend to adopt multidisciplinary module that teaches about enterprise, entrepreneurship and innovation. Current entrepreneurship education in vocational training emphasizes on business development and ensuring that students get real-world knowledge.

4. Individual factor is important factor influencing entrepreneurship education. Universities need to focus on aspiring entrepreneur may be unable to maximize the learnings from his/her entrepreneurship training because of the hearing impairment which can affect his/her maximum participation in the learning environment. Such personal limitation affects the student's ability to convert the lecture to functioning of being entrepreneurially knowledgeable. Furthermore, the opportunity which a student has to undertake entrepreneurship education can also be seen as an individual factor because the knowledge and skills acquired can influence how he/she is able to convert other resources into the functioning of being an entrepreneur. This crucial role of entrepreneurship education in inculcating in the students, the skills, knowledge and attitudes required for being an entrepreneur.

B. Recommendations for Further Research

1. The process of implementing the concept of entrepreneurship education may not be able to operate successfully in a short time. Therefore, it should conduct further research be set to longitudinal study.

2. This structural equation model should be tested with empirical data in the context of entrepreneurship education

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in other areas by selecting the appropriate latent and observable variables in the context.

CONCLUSION

In conclusion, the findings from the analysis of both quantitative and qualitative showed that the increasing importance of entrepreneurship education and also looks at about the devolution of unemployment crisis. The model confirms that 4 factors: institutional setting, contents of course, teaching methods, and individual factor possessed effects on entrepreneurship education. Teaching methods had the highest positive direct effects on entrepreneurship education, followed by institutional setting, contents of course, and individual factor respectively. While institutional setting and contents of course had indirect effect on entrepreneurship education, which teaching methods as a mediator. Therefore when governments have to address to solving the unemployment, the problems become more importance so administrators should be concern about these constructs to provide entrepreneurship education so that a functional capacity can be maintained for unemployment, national economic development and transition.

This structural equation model in entrepreneurship education is successfully tested with empirically data. Over time, an empirically validated theory of entrepreneurship education may emerge by systematically development. Adding to the knowledge of entrepreneurship education theory focuses on the implementation as a means of creating employment and alleviating poverty.

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The Development of Tourism Entrepreneurship for Community Based Tourism in Thailand

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Abstract— The research aims to emphasize the entrepreneurship in community tourism development and to identify guideline of enhancing tourism entrepreneurship for community based tourism of Thailand. The research design was quantitative research. The samples consisted of 175 people living in the community, entrepreneurs in the community, government officials, folk philosopher, and community leaders who have tourism operations. Data were collected using a questionnaire. The major findings showed that an approach in the development of tourism entrepreneurship adhering to Community Based Tourism should focus on the development of 5 groups, namely 1) Community-based tourism management 2) Economic society and quality of life management 3) Conservation and promotion of community cultural heritage 4) A sustainable system management of natural resources and the environment and 5) Community based tourism services. This result shows the importance of entrepreneurial tourism for Community Based Tourism. It is essential reading for both tourism and entrepreneurship.

Index Terms— *Tourism Entrepreneurship, Community Based Tourism, Community Tourism*

I. INTRODUCTION

Driven by increasing wealth and economic development, tourism is one of the most rapidly growing industries worldwide. With its rapid growth, a diversification of tourism products and destinations is taking place, consequently, demanding new alternative types of tourism, e.g. small-scale nature-related and rural 'experience' tourism. Within the total world market for tourism, rural tourism forms a relatively small sector but is of growing importance. When governments and the tourism industry wish to develop new regions for tourism, they are increasingly considering rural areas, which, until now, have been little developed for tourism. Local authorities and other bodies throughout are considering rural tourism as a key part of local development, usually with a specific focus on the use of the local heritage [1].

Communities, particularly those located in less-developed countries, are continuously faced with various social problems. The potential for tourism to drive economic growth makes it a relevant tool for developing low-income and underserved communities, and places these localities at the center of tourism development. Previous work implies that communities in need possess the necessary tourism assets, provide the local experiences that tourists seek and construct the spaces that they consume. This leads to the goal of developing communities holistically and sustainably, often through community-based and pro-poor tourism initiatives. [2].

Scholars also emphasize the need for increased research attention on innovation and transformation in the tourism sector to better take advantage of opportunities related to the demand for experience-based products. The exploration and exploitation of such opportunities demand entrepreneurial action. In congruence with this development, various scholars have called for research related to entrepreneurship in the tourism sector. As an academic field of study, tourism entrepreneurship has slowly emerged from a few articles published in the 1970s and 1980s, primarily within the area of business economics and economic geography, to a more diverse body of literature with an increasing number of studies. However, until recently, only a small proportion of articles on tourism have been related to entrepreneurship issues [3].

Policymakers emphasized the importance of tourism entrepreneurship and encouraged to address community sustainable development. A major assumption in these developments is that tourism is driven by entrepreneurs who are individuals that typically possess vision, innovativeness and creativity. Such entrepreneurial

behavior characteristics are vital for the performance of community tourism. Consequently, lots of efforts are being put into advancement of tourism entrepreneurship in tourism sector [4].

Incorporating some of the concepts of community-based tourism is the 'provider-capacity building' model, where social entrepreneurs organize and involve the wider community, identify community needs, and develop local capacity to address these needs through human resource development and tourism training. Community-based tourism development concepts and approaches are conceptualized as alternative strategies to conventional mass tourism models. These alternative approaches have been designed to create a sustainable tourism industry in various locations worldwide, improve local living conditions, generate lasting impacts and, ultimately, induce sustainable community development [5].

According to the Community Based Tourism of Thailand, there is still a lack of strength. The key problem is no internationally accepted standard. The problem is 1) the tourism is not developed in the same direction. 2) Lack of integrated management, unable to connect community tourism with each other 3) Communities, as entrepreneurs, lack tourism management skills, the ability to create activities and innovation in tourism from the identity of the community itself 4) people lack awareness of natural resource and environmental and 5) degrade the ecosystem in the tourist attractions and increase the amount of waste more [6] [7].

Consistent with these points, to achieve in order to develop the community tourism in accordance with the community-based tourism community management standard. The researcher is therefore interested in researching on "Guidelines for the development of entrepreneurship in the tourism community according to the community based tourism standards. The Development of Tourism Entrepreneurship for Community Based Tourism in Thailand needs to be established.

By conducted research in southern part of Thailand, as the south is a multicultural region, racial and religious. The tourism entrepreneurship for community based tourism implementing by providing opportunities for all sectors to participate in problem solving based on the concept of tourism entrepreneurship, which lead to achieve of implementation for concepts of community-based tourism that would be matched up with the way of life in the characteristics of that area. This would result in high quality engage in sustainable community development in southern part of Thailand.

II. Research Objectives

The objectives of this research article were 1) to emphasize the entrepreneurship in community tourism development, and 2) to identify guideline of enhancing tourism entrepreneurship for community based tourism of Thailand.

III. Research Methods

A. Research Design

This study undertakes a quantitative research. The sample consisted of 175 living in the Baan Na Tham community, entrepreneurs in the community, government officials, folk philosopher, and community leaders who have tourism operations, selected by proportion and purposive sampling. Data analysis was conducted by using descriptive statistics to analyze the statistics.

The research tool was close ended questionnaires, divided into 3 parts: 1) General information of respondents. The question is a check list of 10 items. 2) Evaluating the potential of community tourism management. According to the community context Historical data 10 items of information about the culture and way of life of the community were assessed at five levels, namely the highest level, the highest level, the moderate level, the least level and the least level. 3) The assessment of the entrepreneurial potential in the community tourism management. According to the Community Based Tourism Development Criteria (CBT) Criteria for Community Based Tourism in Thailand. It is an assessment form, scoring according to the criteria in 5 areas, 29 goals.

B. Research Process

Research process of this research has developed into 3 steps consisted of Analyze potential of tourism entrepreneurship context, Assessment of Entrepreneurship in Community Tourism Management potential, and conclusion guideline of enhancing tourism entrepreneurship for community-based tourism of Thailand. Steps were shown in Fig. 1.

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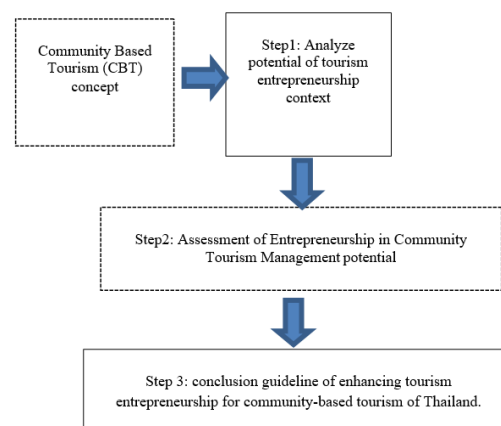
Fig.1 Research process for identify guideline of enhancing tourism entrepreneurship for community based tourism of Thailand.

IV. RESULTS

The Background of People Respondents

According to 175 questionnaires, it was found that 50.90% of people are female and 49.10% of people is male. The age of people is mostly between 40-49 years (22.90%). The education of people is mostly senior high school degree (21.70%). The monthly income of people is mostly 5,000 baht (22.90%). Their background is illustrated in Table 1 below.

Table 1. The background of people respondents

Input data	Number	Percentage
Sex		
Male	86	49.1
Female	89	50.9
Age (years)		
<20	8	4.6
20 – 29	35	20.0
30 – 39	37	21.0
40 – 49	40	22.9
50 – 59	38	21.7
≥60	17	9.7
Education		
Primary School	33	18.9
Junior High School	18	10.3
Senior High School	59	33.7
High Vocational	19	10.9
Certificate		
University	32	18.3
Graduate	11	6.3
other	3	1.7
Salary		
≤ 5,000	71	40.6
5,001 – 10,000	60	34.3
10,001 – 15,000	19	10.9
15,001 – 20,000	8	4.6
20,001- 25,000	7	4.0
25,001- 30,000	3	1.7
≥ 30,001	7	4.0

Potential of Community for Tourism

significant tourism potential in 7 important areas, consisting of 1) the community preserving and inheriting the culture and tradition, 2) the community having tourist attractions through archaeological sites, unique artifacts, and 3) communities history, culture, traditions that can be searched, 4) The community has local knowledge, 5) The community has natural resources and the national tourism , 6) community lifestyle and local wisdom that is unique to the locality, 7) the community has a way of life that is bound to natural and historical attractions. Their area is illustrated in Table 2 below.

Table 2 Potential of Community for Tourism

Issue	$(\overline{X})$	(S.D.)	level
1 . The community has natural resources for tourism	4.13	1.04	high
2. The community is cared for preserve the natural resources of tourism	3.93	1.19	high
3. The community has tourist attractions of ancient ruins, antiques and architecture that are unique	4.22	1.04	high
4. The community has a way of life. Folk wisdom	4.13	1.03	high
5. The community maintains and inherits the culture and tradition. Organizing activities that show the continuation of cultural traditions in the community	4.25	1.02	high
6. The community has a history, culture and traditions that can be searched	4.18	1.06	high
7. The community has a way of life that is tied to natural and historical attractions	4.10	1.01	high
8. The community has local wisdom	4.14	1.02	high
9. The community has a variety of tourism activities.	3.54	.968	high
10. The community has villagers who can tell about the history. Arts and culture traditions the wisdom of the community	3.30	1.13	mod erate
total	3.99	1.05	high

Tourism entrepreneurship potential for community based tourism

The Tourism entrepreneurship potential for community based tourism was presented as a result of analyzing 175 questionnaires of people respondents. The overall is at a fair level. Community based tourism services has the highest rating as which was fair ($\overline{x}$ = 1.72), Followed by economic society and quality of life management which was fair ($\overline{x}$ = 1.71) and conservation and promotion of community cultural heritage which was fair ($\overline{x}$ = 1.69) and community-based tourism management which was fair ($\overline{x}$ = 1.59) and sustainable system management of natural resources and the environment which was fair ($\overline{x}$ = 1.49) so the total mean score was fair ($\overline{x}$ = 1.64). The potential are illustrated in Table 3 below

Table.3 Tourism entrepreneurship potential for community based tourism

Issue	$\bar{x}$	percentage	level
management			
2. Economic society and quality of life management	1.71	42.69	Fair
3. Conservation and promotion of community cultural heritage	1.69	42.33	Fair
4. A sustainable system management of natural resources and the environment	1.49	37.15	Fair
5. Community based tourism services	1.72	42.96	Fair
Total	1.64	40.82	Fair

V. DISCUSSIONS

Community-based tourism services

Community-based tourism management had the highest tourism entrepreneurship potential for community based tourism due to Ban Na Tham community has a safe travel service point. Safety information on how to use the itinerary and participation in activities such as road signs and warning signs are provided. Along the clearly visible tourist route and installed in the appropriate places. In major tourist attractions such as Wat Tham Khuha Phimuk and Tham Silpa, but the issues that are still lacking in this area are the community still lacks a tool to assess the satisfaction of tourists, such as assessments, guestbook, questionnaires to improve community management [8].

Economic society and quality of life management

Economic society and quality of life management is a good level of readiness, number 1 goal is human rights in tourism are a priority. This may be due to Ban Na Tham provides an opportunity for youth, women, the elderly, the disabled and various groups of people to take part in tourism activities equally. But the issues still lacking in this area are efficient income allocation Ban Na Tham community does not have clear income allocation criteria. Resulting from tourism for group members and no income generated from tourism is allocated to the Community Development Central Fund for use in the public interest. To create understanding and perception of the mutual benefit of the whole community it does not belong to one of the groups that will benefit [9].

Conservation and promotion of community cultural heritage

Conservation and promotion of community cultural heritage are ready with a high percentage score which may be due to Ban Na Tham community offers activities for tourists to learn and experience local culture. Community life through real experiences. There is a written search and collection of information about community cultural heritage, such as historical records, way of life, etc. And

there are clearly conservation activities or local ways of life for future generations [10].

Community-based tourism management

Tourism management by the community Ban Na Tham Community is a small percentage score in this area. This may be due to the community lacks information dissemination to all parties to participate in the perception of tourism in the community. The community has not yet worked with the marketing network partners to promote tourism in the community. Including the lack of tourism promotion activities in the community or distributing various public relations media to tourists through various channels another important point is the community does not yet have a financial management system. Effective accounting and the community may not yet provide a youth tour guide to provide information to tourists [11].

A sustainable system management of natural resources and the environment

In sustainable system management of natural resources and the environment Ban Na Tham Community have the lowest percentage score in this area. This may be due to the community lacks zoning for community tourism for community members and tourists. Including the determination of capacity to accommodate tourists in tourism areas that will not cause obvious social, cultural, natural or environmental resources. And to formulate plans to mitigate the negative cultural / environmental impacts caused by tourism such as garbage and sewage, wastewater, noise Storing things for personal possessions, etc. That is, the Ban Na Tham community should raise awareness of the importance of conserving natural resources or the environment for people in the community. To create a balance between resource utilization in tourism, but must be coupled with environmental resource conservation [11].

VI. RECOMMENDATIONS

A. Recommendations for Practices

1. Although the culture of the community appreciates and attracts a number of guests, this study has shown a high level of security protection through community policing and actions that the security issue is one of the major challenges in implementing tourism entrepreneurship, as criminal activity threatens the tourism industry. Although the community crime scale is small, criminal activities such as bag snatches and theft are major security-related challenges toward initiatives.

2. Tourism entrepreneurship potential often suffer from a lack of financial sustainability. Mostly, it is due to the absence of business expertise, knowledge among members and access to the market. When tourism entrepreneurship for community is developed based on community assets, the aim to develop a greater economy is the first major concern.

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In this sense, products should be designed based on market demand and mentioned the need for superior products locally owned by the community as a solution toward financial sustainability.

3. Tourism entrepreneurship for Community-based tourism development is sensitive because it requires the creation of understanding toward people in the community with the help of tourism group leaders. In the beginning, development should be gradual steps taken together within the developing tourism attraction's capacity. These things cannot be achieved by only the community, but also need stakeholders who take on roles, especially for communities with new tourist attractions which are capable of attracting tourists from other nearby sources.

4. The development should be relevant to the tourism of the community. This includes training, knowledge supports, field study, lesson learned, working, systematic management plan, and improving capacity in tourism and hospitality in order to help local people have up-to-date knowledge in response to a continual change in the tourism situation. Moreover, this contributes to bringing encouraging participation from a New Generation.

B. Recommendations for Further Research

1. The process of implementing the concept of tourism entrepreneurship may not be able to operate successfully in a short time. Therefore, it should conduct further research be set to longitudinal study.

2. There should be a qualitative research to know the dimensions of assessing entrepreneurial potential in community tourism management appropriate and consistent with the community context. Since this study was a quantitative research, data was collected using questionnaires which are based on theory and research based on research in other areas. Qualitative research resulted in more information that could be used appropriately in the Ban Na Tham community area. It is also to check whether the results of the quantitative research are consistent or not.

3. This developed community tourism entrepreneurial development approach should be tested with empirical data in the context of community-based tourism management in other areas.

CONCLUSION

In conclusion, from this study that undertakes a quantitative research. The sample consisted of 175 living in the Baan Na Tham community, entrepreneurs in the community, government officials, folk philosopher, and community leaders who have tourism operations, selected by proportion and purposive sampling. Data were collected by using five-point Likert scales questionnaires. Data analysis was conducted by using descriptive statistics to analyze the statistics the analysis of quantitative showed that Community Tourism in Ban Na Tham, Muang District, Yala Province, has significant tourism potential in 7 important areas, consisting of 1) the community preserving and inheriting the culture and tradition, 2) the community having tourist attractions through archaeological sites, unique artifacts, and 3) communities history, culture, traditions that can be searched, 4) The community has local knowledge, 5) The community has natural resources and the national tourism , 6) community lifestyle and local wisdom that is unique to the locality, 7) the community has a way of life that is bound to natural and historical attractions. And have tourism potential in adhering to Community Based Tourism (CBT) concept according to the 5 levels of tourism development by the community of Thailand 29 goals in general, the potential in tourism management by the community at a fair level in all aspects. A Guideline in the development of tourism entrepreneurship adhering to Community Based Tourism (CBT) concept in Ban Na Tham, Muang District, Yala Province should focus on the development of 5 groups, namely 1) Community-based tourism management 2) Economic society and quality of life management 3) Conservation and promotion of community cultural heritage 4) A sustainable system management of natural resources and the environment and 5) Community based tourism services. Community based tourism services has the highest rating as which was fair, followed by economic society and quality of life management which was fair and conservation and promotion of community cultural heritage which was fair and community-based tourism management which was fair and sustainable system management of natural resources and the environment which was fair so the total mean score was fair.

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The Implementation of Concrete Areas of the Community Organization Councils for self-governance of Local Communities: A Case studies of the community organization councils in Na Wae Sub-district, Chawang District, Nakhon Si Thammarat Province Thailand.

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Abstract— This article is a part of research study on The Implementation Of the Community Organization Councils for self-governance: A Case studies of community organizations councils in Nakhon Si Thammarat Province Thailand, Which aims to study the Implementation of Concrete Areas of the community organization councils To promote self-governance knowledge of local communities The researcher gave an example of the community organization councils in Na Wae Sub-district, Chawang District, Nakhon Si Thammarat Province Thailand. Which is the prototype area of this research By using participatory action research methods. The results of the research onThe Implementation of Concrete Areas of the Community Organization Councils for self-governance of Local Communities: A Case studies of the community organization councils in Na Wae Sub-district, Chawang District, Nakhon Si Thammarat Province Thailand found that It is a platform for sharing knowledge and experiences among development partners, including government, private and public sectors who are members of community organizations, which have a number of driving activities, both on issues, problems and social capital such as customs and traditions, community services, community rights in resources and environment, organic farming systems in the community, community welfare fund systems, and Community financial institutions etc. And There are new community organizations According to the policy of the agency And government policies such as civil servant shops, Rural Solidarity Group etc. and It is an important strategy to Implementation the community organization council for self-governance in the future. This will be the growth and strength of the Thai citizen movement to another level.

Index Terms—The Implementation of Concrete Areas, the Community Organization Councils, self-governance of Local Communities.

I. INTRODUCTION

The Community Organization Council was born from the Community Organizations Council Act B.E. **2551 (2008)** which has important principles in promoting local communities of the country. Able to Set up a group of community organizations according to their own issues in each area. By jointly establishing solutions and processes for solving problems To make a proposal to the government Both local and national levels And is an important practice in promoting self-governance of local communities In particular, according to Article **21**[1], The Community Organization Council. The mission is as follows. That is, promote and support community organization members to preserve or restore local wisdom traditions. Arts or culture of the community and the nation By creating cooperation with local government organizations and government agencies to manage, Maintenance And the utilization of natural resources that will benefit the community and the nation for

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sustainability. Along with disseminating and giving knowledge and understanding to members of the community organization Including cooperation in environmental quality protection, etc.[2] And as Kovit Puang-ngam [3] proposed the self-governance of local communities in 5 different dimensions: 1] self-management of local communities in the area of community plan. 2] Self-governance of local communities in agriculture 3] Self-governance of local communities in terms of natural resources and environment 4] self-governance of local communities in community finance 5] self-governance of local communities in terms of sufficiency economy.

Therefore, the mobilization of community organization councils has been implemented to create concrete areas, self-governance of local communities in the area of **2,953** sub-districts with intensive operations of about **300** sub-districts nationwide. With the preparation of spatial data Organize a self-analysis process To create a local community plan for self-governance, short, medium, long, creating a collaborative mechanism at the local level. Including the participation of the lower base community by providing a forum at the district level. By community organization council Including a network of community organizations is an important mechanism in driving To formulate a plan for the development of self-governance reforms that are consistent with the context of the area.[4] And if since the Community Organizations Council Act B.E. 2551 (2008) is in effect until the year 2019 [5] Found that the effect of the mobilization It was formed as a concrete area for the community organization council, leading to the self-governance of 518 sub-districts Scattered throughout all regions of the country And there is an ongoing operation plan to achieve the goals set. According to the **5-**year community organization council (2018-2022) strategic plan

It is extremely interesting that The Implementation of Concrete Areas of the Community Organization Councils for self-governance of Local Communities: A Case studies of the community organization councils in Na Wae Sub-district, Chawang District, Nakhon Si Thammarat Province, Thailand. This is an area that plays an important role in The Implementation of the community organization council for self-governance of Local Communities. In particular, the forum of the community organization councils is a tool to promote knowledge for self-governance of local communities and as a model concrete area for other community organization councils in the future.

II. OBJECTIVES

To study the Implementation of Concrete Areas of the community organization councils To promote self-governance knowledge of local communities

III. METHODOLOGY

This research study. The researcher used participatory action research methods Or often referred to as "PAR". The study was divided into 2 main features in order to make the study results more complete as follows.

1. Research studies from documents, By studying from academic documents, research results, thesis articles and other evidences Related both within the country and abroad To help fill in the construction of a theoretical conceptual framework for the researcher This can be said to be an important part of this research process.

2. Field research studies to The Implementation of Concrete Areas of the Community Organization Councils for self-governance of Local Communities: A Case studies of the community organization councils in Na Wae Sub-district, Chawang District, Nakhon Si Thammarat Province Thailand. It is a part of research study on The Implementation Of the Community Organization Councils for self-governance A Case studies of community organizations councils in Nakhon Si Thammarat Province Thailand, The researcher coordinated with the community organization council steering committee, namely 1] Chairman of the Steering Committee of Nakhon Si Thammarat Provincial Community Organization Council 2] Secretary-General of the Steering Committee of Nakhon Si Thammarat Provincial Community Organizations Council 3] 5 staff members of the Community Organization Development Institute (Public Organization), By organizing a community forum with representatives of committee steering the community organization council, Na Wae Sub-district, Chawang District, Nakhon Si Thammarat Province And members of the community organization council of 12 villages shared knowledge and experiences These consist of 1] Chairman of the Na Wae Sub-district Community Organization Council 2] Secretary of the Na Wae Sub-district Community Organization Council 3] Chairman of the Na Wae Sub-district Administrative Organization 4] Representatives of 12 members of the Na Wae Community Organization Council

IV. RESULTS

The Implementation of Concrete Areas of the Community Organization Councils for self-governance of Local Communities: A Case studies of the community organization councils in Na Wae Sub-district, Chawang District, Nakhon Si Thammarat Province, Thailand. Found that :

1. The Implementation of the Community Organization Councils for self-governance.

The Community Organization Councils of Na Wae Sub-district, Chawang District, Nakhon Si Thammarat Province Started registration and established around December 2009 under of the Community Organization Councils Act B.E.2551 (2008) with members who represent community organizations. Covering 12 villages with approximately 2,394 households. The community organizations There are a number of common activities in social driving, both in issue and social capital. such as customs and traditions, community services, community rights in resources and environment, organic farming systems in the community, community welfare fund systems, and Community financial institutions etc. Especially The establishment of a community financial institution spanning all 12 villages can be said to drive the social capital together of the Na Wae Sub-District Community Organization Council. Which is a concrete present And There are new community organizations According to the policy of the agency And government policies such as civil servant shops, Rural Solidarity Group etc.

2. Using the community organization council as is a forum for the community meeting to promote knowledge in self-governance.

Na Wae Sub-district Administrative Organization, Chawang District, Nakhon Si Thammarat Province found that There are approximately 34 community organization groups scattered in the Na Wae Sub-district, Cover area 12 villages, which have been established and registered as members of the Na wae Sub-district Community Organization Council. According to the Community Organizations Council Act B.E. 2551 **(2008)** Therefore, the Na Wae Community Organization Council has the status that is certified under the Act Able to connect groups of community organizations which are driven by various issues Of the district together Thus creating a space for coordination between the state and the community Both the owner of the problem and the contributors in solving the problem. And also found that the Na Wae Community Organization Council There is a community forum to meet members of the community organization council once a month Which the local government agencies and provincial officials and various support staff Able to participate in exchange and learn experiences And set ways to solve problems together Causing the movement of the community organization council in unity And to promote the self-governance knowledge of the committee And a member of the community organization council in Na Wae Sub-district, Chawang District, Nakhon Si Thammarat Province Especially in the area of community benefits as a key component in the self-governance of local communities.

And it will be knowledge that can be passed on to members of the community and those who are interested.

V. DISCUSSION

The Implementation of Concrete Areas of the Community Organization Councils for self-governance of Local Communities: A Case studies of the community organization councils in Na Wae Sub-district, Chawang District, Nakhon Si Thammarat Province, Which aims to study the Implementation of Concrete Areas of the community organization councils To promote self-governance knowledge of local communities When considering that Na wae Community Organization Council There are a number of common activities in social driving, both in issue and social capital. To enhance self-governance of local communities And the Na Wae Community Organization Council Having the status that has been certified under the Community Organization Council Act B.E. 2551 **(2008)** Especially driving the mission under Article 21 of The Community Organization Council Act As Phanthip Phet Mak [6] summarized 8 conditions for self-governance of local communities 1] Using the social capital base 2] solving common problems of local people 3] Data preparation as a tool to drive work 4] Use of development indicators as a tool for monitoring development results. 5] The good relationship base between local communities has a common goal. 6] Having a community organization council is a central forum for regular consultations. 7] Opening space for young leaders 8] Coordinating with external agencies to work.

The Na wae Community Organization Council There is a community forum for meeting members of the community organization council together. When considering that It promotes knowledge of the committee for self-governance. And a member of the community organization council in Na Wae Sub-district, Chawang District, Nakhon Si Thammarat Province This will be knowledge that can be passed on to members of the community and interested people and is an important tool for self-governance of the local community.

VI. CONCLUSION AND SUGGESTION

It can be concluded that The Implementation of Concrete Areas of the Community Organization Councils for self-governance of Local Communities: Case Study of Community Organization Council of Na Wae Sub-district, Chawang District, Nakhon Si Thammarat Province Use a community organization council as a forum To promote knowledge Share experiences together of community organizations and Various support networks to contribute to the main goal of self-governance of local communities.

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However, in order to The Implementation of Concrete Areas of the Community Organization Council for the self-governance of local communities Is sustainable Therefore, there are additional suggestions as follows

1. The Community Organization Council of Na Wae Sub-district, Chawang District, Nakhon Si Thammarat Province Should monitor and evaluate the driving results of community organizations By creating data sets such as project activities Performance results, problem conditions and ways to improve, etc. To summarize as a lesson and use as a guideline for the operation of community organizations.

2. Development parties Both public and private sectors should be used The community forum of the community organization council for as a tool to exchanging knowledge, And considering the budget to support community projects Including driving other missions of the agency, etc.

3. The Na wae Community Organization Council Must develop and upgrade the driving mechanism to be strengthened From the inside of the community organization council, such as creating participation, cooperation, public awareness Support to strengthen community organization groups That arise from the diverse resource base and community capital, etc. to reduce dependence on the Act and external resources

4. Community organization group Which performs each type of activity should be presented A group action plan once a year, To the meeting of the community organization council For the exchange knowledge together Both operations And evaluation To lead to a lesson summary together

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A Development of Community Potentiality for Enhancing Peaceful Society by Buddhist Integration

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Abstract— This research aims to propose a guideline for community potential development to promote an integrated Buddhist peaceful society. There were 21 samples and the research instruments consisted of observation. In-depth interviews and focus group discussion using content analysis methods. The results of the research showed that the approach to community potential development to promote an integrated Buddhist peaceful society consisted of 1) Buddha means community potential development. There must be a Buddha as an anchor for the mind and connected with legend causing faith to be one. It may start from the wisdom or the beliefs of the community, which should be preserved or built on the beliefs as a common point or the beginning of faith fusion, and then gradually develop from belief and faith without wisdom to the level of belief that has wisdom or reason to support. 2) Dhamma means the development of community potential, there must be principles, method of development or principles, teachings, and activities or traditions in this section. There must be academic or have principles and knowledge to help support development such as research-based development. However, the academic principles must be able to integrate with the community such as traditions or rituals because the academic giving will have a form that is difficult to understand. However, the rituals or activities will provide knowledge to the sector of practice seamlessly. 3) Sangha refers to the development of community potential, there must be a leader and a model that confirms success, or to guide or point the way that may refer to both the monk and the householder who has charisma including the structural governing mechanism with a goal of development is based on the four principles of prayer, namely physical, behavioral, mental and intellectual. (1) Physical aspect in the first step, the strategy for developing the environment in the village to be clean, the second stage, the strategy for the development of livelihood according to the sufficiency economy principles as a tool to support a happy life. Finance based on commodity principles. (2) Behavior aspect in the first step, the strategy of community development as a community, the fifth precepts, in the second stage, the 5 precepts development strategy for society, aims to show itself as a volunteer, raising the level of community development to recognize the sacrifice, sharing in the third step strategy. Raise the development level to be a model person, a model community. (3) Spirituality aspect in the first step, the strategy for the use of religious activities as a medium for community development, in the second stage, the strategy to raise the mental development from the faith level to the intellectual level in the third stage, the strategy for the development of community potential for woke up has a well-trained mind ready to perform duties according to the Dhamma way. (4) Intelligence aspect in the first step, the strategy to build a strong community base, starting with the main institute of the community, namely the temple, the second stage, the strategy to promote the relationship between the houses, temples, and schools as community intelligence.

Index Terms— *Development of Community Potentiality, Enhancing Peaceful Society, Buddhist Integration*

I. INTRODUCTION

Communities are formed by the gathering of people both in the countryside and in the city. They can be said together that there are rules and principles and the rules of living together strengthening the community have a learning process and the management of knowledge in various forms according to the social landscape that is appropriate in line with the lifestyle based on resources, wisdom, culture, communities, morality, ethics, love unity, selflessness, determination to develop oneself and others. In this regard, the strong gathering of people in the community in addition to being able to prevent and solve difficult and complex problems. In particular, the problem of poverty is related to economic, social, and political

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aspects. This requires a strong community as a pillar of cooperation to act forever to escape from poverty and to help to develop the community for good future [1].

Globalization has brought in a new economic system and borderless communications. Technological change is fast. The rural society is more urban and consumer behavior that is imitated in the western world. All affect the way of life of the people in the whole community nowadays, when it comes to community development problems, most of the problems arise from the participation of the people. There are not enough personnel and staff. Government officials are very few compared to villagers. Village development grants and resources and problems of the people in the community are therefore an obstacle to work lack of readiness, especially economic problems. The problem of informal debt, the problem of falling output prices, being exploited by the middleman, making them want to include a career group bring added value to the product, problems of inheriting local wisdom are still evident in the local communities of Thailand in general. Enhancing the happiness of Thai society, a strong community is an important mechanism in driving community development with strategy and the development approach. It will support and encourage communities to organize activities that are holistic have a learning process and the shared knowledge management of the community through resource capital and the potential of the community have sufficient production to feed itself. Self-reliance has interdependent within and outside the community on the basis of respect for cultural diversity leading to a peaceful coexistence. Reconciliation resulting in peace and tranquility can solve poverty in an integrated way [2].

Social and national development towards a sustainable balance must pay more attention to the strengthening of the existing social capital. Whether it is economic capital, more capital for natural resources and environment, and linked together for the benefit of development, in this regard, the strengthening of social capital will be the main foundation. It must start from developing the quality of people to be people with knowledge, virtue, a public consciousness, and be aware of changes to lead to a stronger community development help and support one another within the community and between communities and is the power of the country's development. One of the important capital in Thai society is religious capital such as Buddhism, which has been with Thai society for a long time, however, under a society that has changed greatly. The goals and ideals of life are influenced and guided by the concept of globalized capitalism, which seeks to pamper and satisfy material needs as the ultimate goal. This puts the burden on a religious institution, a spiritual institution that aims to diminish the inner need. When the world is a people, where most people are created, are defined, it is believed that

economic goals are the main goals of life, based on an infinite-satisfying approach. The role of temples and monks therefore remains only a form which follows the tradition or according to social etiquette only finding ideas for applying Buddhism for easy understanding and can be operated in accordance with the current social way, so it is very necessary [3].

From the long past to the present, it is worth noting that to drive community development is to provide people in the community a learning process for development. Research projects often focus on improving the concrete quality of life which is physical happiness such as the development of village funds, development of water resources, career development, etc. Development of the quality of life in the abstract will be only a by-product one of the reasons why it is not possible to develop an abstract quality of life because it cannot be quantitatively measured as the concrete one. However, if the development of the Buddhist community will be driven need to rely on abstract integration together with concrete which is an important development base of quality of life before expanding to a family, community, society, economy, the research team is therefore interested in studying "Guidelines for developing community capacities to promote a peaceful society through integrated Buddhism" in order to jointly develop community capacities to be strengthened by applying the Buddhist principles to be analyzed, interpreted and then integrated into modern science. This will result in academic knowledge that is truly in line with the needs of the community in line with the government's policy to create a peaceful society as well as creating a livable community in the future [4].

II. RESEARCH OBJECTIVES

1. To study and analyze concepts and practice guidelines for developing community capacities to promote a peaceful society.

2. To study and analyze problems and obstacles in the development of community capacity to promote a peaceful society.

3. To propose a guideline for community potential development to promote an integrated Buddhist peaceful society.

III. RESEARCH METHOD

In the research titled "A Development of Community Potentiality for Enhancing Peaceful Society by Buddhist Integration", the researcher used qualitative research method and collected field study. The study was taken from 2 sources:

A. Research data sources

Primary Data Sources (Purposive Selection) were a total of 21 samples, consisting of monks, community leaders, a group of academics in community development and Buddhism.

Secondary data sources by researching data from related documents such as the Tripitaka, books, articles, journals, documents, theses, internet media as well as related research papers.

The researcher then analyzes the data by means of analysis to find the context content analysis the essence of the content to be analyzed.

(1) Area context of the community that is the research area, what is the condition of the community?

(2) Synthesize community behavior through various activities whether it is based on the development or use of Buddhist principles consists of 4 principles of prayer that are integrated into everyday life by using the temple as the center of community development.

B. Research instruments

The research tools were used to collect data according to the research objectives.

1) Observation form is divided into 2 parts: participatory observation and a non-participatory observation form for observing community work activities.

2) Interview Form: divided into 2 parts: structured interview and the unstructured interview form both examinations used in in-depth interviews with the sample [5].

3) Focus group discussion is the point of group discussion.

C. Data collection

Data collection was used for answer research questions and has collected information for the purpose and scope of research content by surveys, observation, interview, and focus group discussion.

D. Data analysis

1) Preparation with data making consists of preparing an analysis unit (utilization), sampling, recording.

2) Data reduction is the choice of capturing the essence of the data and modifying the data to be clear and easy to understand.

3) Inference is a reference, summary.

4) Analysis to lead to a process that leads to direct validation, testing, and consistency analysis [6].

IV. RESEARCH FINDINGS

Concepts analysis results and practice guidelines for developing community capacities to promote a peaceful society can be summarized as follows:

1. From the synthesis of community development concepts along the Sarvothai village, Land Dharma Land Thong village, 5 precepts village, Pracharat village and Chor

Sa-san Village, concluded that the concept of community potential development to promote a peaceful society can be summarized in the principle of prayer 4, starting from physical development That is to say, the development of the environment to facilitate the development of other things, with the development of the body to survive sustainably by developing a career to be able to live well and the development of strong health in order to continually combat various problems and obstacles through the development of behaviors related to society, regulations, rules, the development of a strong mind, good mental health, good performance and good quality, as well as the development of intelligence for strong and able to understand things that happened as it actually happened. This will affect the look and attitude to be able to understand and find a way to manage life and society based on the right opinion. As for the practice guideline, the PDCA concept must be used as a driving tool by integrating with the principle of influence, so that community development can be successful.

2. Results of analysis of the problems and obstacles in community potential development to promote peaceful society of Ban Khayung community, Huai Tamor sub-district, Phu Sing district, Sisaket province, Ban Non Ngam subdistrict, Non Sawang district, Mueang Bueng Kan district, Chiang Mai province Bueng Kan and Ban Tha Koi Nang, Sawai Subdistrict, Prang Ku District, Sisaket Province, found that Ban Khayung's strengths are: 1) There is a legend about Luang Pu Suang as a center of faith in the community to be one, 2) Participation and Prayana 4 are the main concepts to elevate the community into a cultural tourism destination, 3) There are monks who are strong leaders, able to lead the community and coordinate external networks to join in the development of the community, 4) Establishing a foundation to serve as a source of funds to support activities and projects, 5) To cooperate with the network in the community, 6) volunteer to care for the elderly, 7) The area has been developed to be a cultural tourist attraction according to Luang Pu Suang's teachings, and 8) The community has great faith in Buddhism, but the weaknesses are: 1) A small team, 2) The community still lacks of the knowledge and understanding of community-based development. Ban Non Ngam Community is characterized by: 1) The beliefs about making merit, giving away rice, and faith as the original capital are used as a tool for community development. 2) Measure-centered development activities are used, such as arrangement of the ordination project to allow people to come to the temple and join in the development of the temple. 3) There are monks who are strong leaders, able to lead communities and coordinate external networks in both the public and private sectors who are intellectuals to join in the community development, 4) Adjust the environment of the temple to be pleasant by creating a good Kammatalaya temple suitable for

the ordination and study of Dharma and planting trees in a shady, 5) There is a building to hold the mind, including the wall to keep the ancestors' relics and the creation of the Gandhara Buddha and building a shrine. However, the weakness is the main monks who are the abbot, even if they are descendants of the local people, but do not stay continuously because they have many missions, have to study, sometimes cause the development of a lack of continuity and lack of volunteer work team to drive the community.

Ban Tha Koi Nang community's strengths are: 1. There are monks who are strong leaders, able to lead the community and coordinate external networks to join in the development of the community such as 4 precepts villages, Chor Sa-san villages, etc., but the weakness is the lack of a leader in the area that has knowledge and lack of a working group that works continuously

3. Guidelines for community potential development to promote an integrated Buddhist peaceful society should be developed according to the principle of prayer, divided into 3 levels as follows:

1. Kayabhavana, Physical prayer in the first step, the strategy of developing the environment in the village to be clean such as improving the road including the public domain at the family level, attention should be paid to cleanliness in the area of the house at the individual level, healthy physical health. The second step is strategies for the development of livelihood according to the principles of sufficiency economy as a tool to support a happy lifestyle that is to divide the expenditures according to Buddhism principles [10].
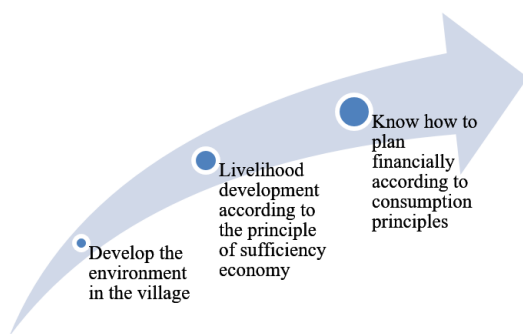
Fig. 1 Model of environmental development (Kayabhavana)

2. Silabhavana, in terms of the precepts in the first step, the strategy of community development as a community, the 5th precepts which enters into being a complete human community has respect for society and self-respect in the second step, the strategy for developing the 5 precepts for society, aiming to show itself as a volunteer, raising the level of community development to recognize the sacrifice.

sharing in the third step and developing a network to expand mentors mentality to other communities [11].
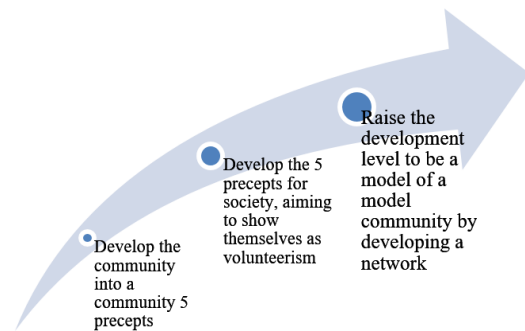
Fig. 2 Model of community development (Silabhavana)

3. Cittabhavana in the first step, the strategy of using religious activities as a medium for community development until it becomes a tradition, a way of life that will be a legacy of the future generations. For example, chanting over the years, etc. In the second step, the strategy for raising the level of mental development from the faith level to the wisdom level to create a sense of self, family and society has a well-trained mind Ready to perform duties according to the dharma way [12].
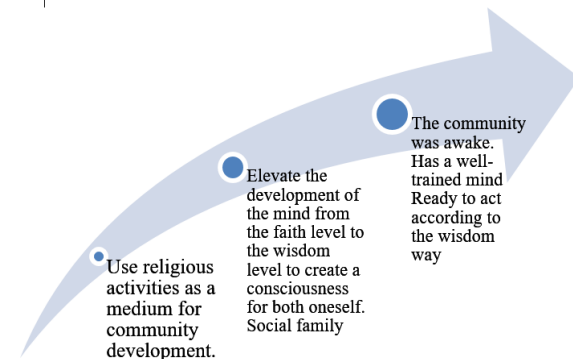
Fig. 3 Model of mental development (Cittabhavana)

4. Pannabhavana, Intellectual development in the first step, the strategy to build a strong community base, starting with the main institute of the community, namely the 2nd stage, the strategy to promote the relationship between houses, temples, schools, as well as government or private sectors. Strengthen the role of the ritual temple to the intellectual temple of the community, the third step strategy to strengthen the relationship between the house, temple, school, change from the role of the ritual temple that lacked wisdom brings a lust or adherence to superstition or various credulity Become an intellectual measure of the community that can analyze right, wrong, good, bad, should not do, it is a society of attitudes, that is, approval and ready to develop to a higher level of goals. [13]
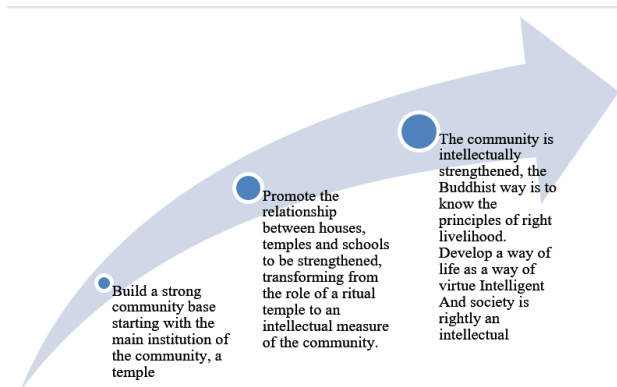
Fig. 4 Model of Intellectual development (Pannabhavana)

V. DISCUSSIONS

The results of the study showed that the approach to community potential development to promote an integrated Buddhist peaceful society. It should be applied according to the Tri-ratana by setting goals for the development of community potential in 4 areas, namely physical, physical, mental, visual, and intellectual by using the development mechanism according to the trajectory [14]. The proposed color, the strength of a community is like social immunity. These three key components are incorporated: (1) Dharma, (2) Learning, (3) Management of each of the three elements is very powerful, namely Dharma, Learning and Management. Each one of the components was not enough to meet the difficulty of the problem, but when the three come together, therefore, the strengthening of the community is a tool for economic development, integrated with culture and the environment in an integrated way, that is, the strength of the community and the community economy is of great importance to the future of the country. It should be that all parties in society will study and understand and campaign for movement in a direction and social currents will drive policies and actions towards the strength of the community and the economy, community, public and private resources. There is more than enough to support the strength of the community and the community economy, but these resources are sparse, disorganized, and there is no central point that leads to the strength of the community. The systematic use of resources will support the strength of the community and the community economy. It is also consistent with Phramethisutaporn and others [15] mentioned. Strong community, the main characteristics are: 1) have community consciousness Or a community spirit 2) Community spirit 3) Being a learning community 4) Strong community organization 5) Good community management 6) Community network 7) Community leadership 8) Being a dependent community 9)

Be a peaceful community 10) Sustainable development and in line with the Dharma of Phrapromkunaporn (P.A. Payutto) [16] has written about the base of sustainable development that the holistic foundation of the Three Prasarn in Thai is the system of human existence consists of three elements: 1) human body 2) society 3) nature for human being to live well, must be harmonized and harmonized or adjust them together to fit in a proportionate relationship. If the three groups are in conflict, are opposed to each other in terms of interest or advantage, or is a response to demand, not looking at the characteristics as elements integrated into a single system, must rely on their effects on each other. When looking wrong, this contradicts this truth. In practice, it will result in a corrupt conflict or having to cause persecution in society and when nature loses, society has problems, and each human's life is not as happy as he wants, and then varied all 3 elements, so the three elements must be harmonized It means that there must be a variety of relationships. What is good for humans is also good for society? What is good for society is good for each human being? What is good for humans is also good for nature? Things are good for nature are good for society and good for human life too. But how do we do these 3 elements? Come in harmony with each other in a balanced holistic system.

VI. BODY OF KNOWLEDGE FROM RESEARCH

From the above, it can be summarized as a guideline for community potential development to promote an integrated Buddhist peace society according to the Triple Gem by setting goals for community potential development into 4 areas: physical, behavioral, mental, and intellectual by using mechanism of the development according to the Triple Gem consisted of Buddha, Dhamma and Sangha as shown in the figure.

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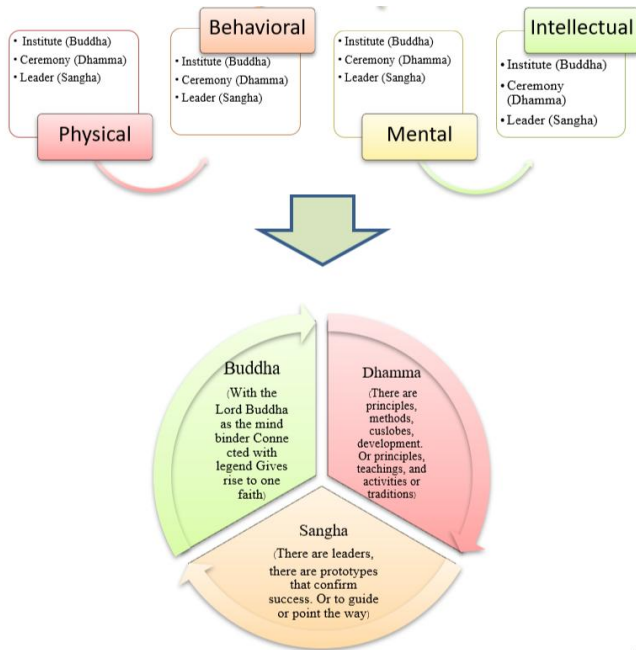
Fig. 5 Guideline for Development of Community Potentiality for Enhancing Peaceful Society by Buddhist Integration

From the picture can be described as follows

1. Buddha means developing community potential. There must be a Buddha as an anchor for the mind, connected with legend, gives rise to one faith at the villagers level, it may start from the wisdom or belief of the community, should preserve or preserve or build on the beliefs as a common point or the beginning of faith fusion and then develop from belief in a lack of wisdom to a level of belief that has wisdom or reason to support [17].

2. Dharma means the development of community potential. There must be principles, methods, Guslobai development or principles, teachings, and activities or traditions in this section, there must be academic or have principles or knowledge to help and support development such as research-based development, etc. The academic principles must be able to integrate with the community's original Guslobai, such as traditions or rituals because the academic principles will have the form Incomprehensible But rituals or activities can provide knowledge to the sector of practice seamlessly [18].

3. Sangha means the development of community potential, there must be a leader and a model that confirms success or to guide or point the way may refer to both the monk and the householder who has charisma including the structural governing mechanism. The priest must have general leadership qualities [19], namely:

1) must have world-class knowledge enough to explain the complexity of modern suffering. It is not just the spread of dharma on the global level, ethics or morals in general,

as the complex social conditions have created new social conditions and relationship systems. That pressures life, especially youth causing distress violence, hatred that comes from very complex factors. The relief of suffering therefore need knowledge at the essence level of Buddhism able to identify the causes of suffering and happiness step by step [20].

2) have skills in designing educational methods. Design Guslobai to be in various activities, with the essence of virtue still being former monastic institution Is a collection of Guslobai in the form of traditions, rituals built on the aforementioned bases. As a result, Buddhism takes precedence over spirits and Brahmins. Before the ecclesiastical education was abandoned from modern development, causing the inheritance with the essence of Dharma to be lost, leaving only a shell of ritual traditions that cannot be communicated with modern people. Therefore, there is no Guslobai that is improved, created, developed, new to suit the new society. The ultimate goal of having a measure Is to be a public place, contributing to the self-development of individuals, groups, individuals, communities or the development of 4 dimensions of wellbeing, namely physical, spiritual, social, spiritual [21].

3) Be aware of the changes in the modern world. Especially consumerism culture Especially the tactics of marketing Is to be drunk, and to take an object Moreover, it is not only at the individual level, but the monks and the laymen are required to have knowledge at the level, structure and system of society that dictates the changes [22].

The features that support cognitive traits are: being a visionary and a strategic thinker and have creative thinking to extend the activities. The operational qualifications are; 1) have good coordination and cooperation, able to create a network of partners to be diverse and different so that they can expand their work in a variety of ways. 2) expert in resource management not only on capital but covering other capital such as human capital, knowledge capital, material resources, etc. seek knowledge, seek thought and new knowledge from books and activities of various organizations continuously [23]. 4) have good communication skills and skills. Therefore, creating cooperation with all concerned people including the fair preaching which is impressive. If there is leadership and focus on the development of personnel, various activities are not stopped It depends on the qualifications of the main monks and the householder mentioned above [24].

VII. SUGGESTION
A. Suggestions for applying research results

1. Suggestions for applying the research results are that the properties of the monks' leaders must be developed, and the householder to have an important element, namely

content, to understand Buddhism at the global level, truth or essence of Buddhism be up to date with consumerism culture have Buddhist knowledge that promotes both internal and external management. Practice skills in applying various knowledge provide usefulness and other necessary skills.

2. The research results should be used to drive the development of sustainable community potential. It started with the measure first to measure as the traditional role-driven agency that used to be with the relevant departments to give serious and continuous support.

3) Research results should be used in formulating strategic plans and action plans to benefit and benefit humans to live together happily.

4) The temple in the community should be the center of great benefits for Buddhists as a person who plays the role of being a center of faith and strengthening wisdom and serves to cultivate morality, ethics for Buddhists to absorb the principles as tourists, able to bring them back to use in their daily life.

B. Suggestions for further research

The researcher suggests issues in the next research. In the part that the researcher has not studied in depth or the researcher thinks that there should be further studies, research and development as follows:

1) There should be a research study on the issue. "Guidelines for developing community potential to promote a peaceful society through an integrated Buddhist way of promoting cultural tourism".

2) There should be a research study on the issue. "Strategies for developing community capacities to promote a peaceful society according to the religious path".

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Survey Project on Opinion and Attitude toward Narrating News Program of People in Northern Part of Thailand

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Abstract— The purposes of this research were to study the behavior of watching news programs of people in the northern part of Thailand, attitude towards programming and content of narrating news programs, and compare the expectations and satisfaction of people in the northern part of Thailand towards watching a narrating news program. This research is quantitative research, with a comparative study of sports and entertainment news to watch news programs using questionnaires as a research tool. The research population consists of 1,600 people living in the north of Thailand with ages 15 and above. Data were analyzed using descriptive statistics and t-test (Independent Sample t-test and Pair sample t-test). The results revealed that most of the samples used to watch narrating news program on television, both on weekdays and holidays between 18.01-21.00hrs which had the frequency of watching narrating news program every day. The narrating news program viewed because the language is easy to understand, and the reliability of the news programs is at a medium level. The results of the study also revealed that the sample group has an attitude towards program planning and contents of narrating news programs at a high level; the expectation was more significant than the satisfaction with the viewing of narrating news programs, which were the statistically significant difference at the 0.05. Entertainment and sports news have different attitudes towards programming and content of narrating news programs with statistically significant at the 0.05 level (P-value = 0.00), but the expectations and satisfaction are not different. While both types of news, sample groups were less satisfied with the narrating news programs than expected.

Index Terms— Behavior of watching narrating news program, Sports news, Entertainment news

I. INTRODUCTION

In the digital era, the combination of the internet of thing (IOT) makes all technologies connected to networks with systematically for exchanging and sharing to each other both industry and business section. Furthermore, the society problem solving and how to spend the life is the reason why people has changed which is reflected by the behavior of using the internet. Especially, all the activities process has been activated through the mobile device due to the convenience, such as purchasing the product through online (E-Commerce), approaching the data, and using the social media (Facebook, Twitter, Instagram, and so on) [1]

From the behavior of using the internet of Thai people in 2019 found that Thai people used the internet (1 hour 22 minutes per day) which was longer than the previous year about 17 minutes. The behavior of using the internet for work/study (About 9 hours 52 minutes), using the internet on holiday (About 11 hours 38 minutes). (Office of National Digital Economy and Society Commission, 2019). [2] It can be seen that the pattern of watching TV program has been changed due to the variety selection, but most people are still watch the live TV program from the TV station (More than 84.90%) which the on demand watching rate has increased more than 15.10% (Thailand National Frequency Allocation, 2019). Considering into the detail found that most people watched the news TV program.

Nevertheless, in order to open the opportunity for those entrepreneurs who want to step into the television industry, there was the setting of the first broadcasting master plan (2012-2016). [3] In the strategy 5.2 which is the strategy for the regulating of audio broadcasting and television broadcasting services, [4] the issue was the transforming from analog to digital and changing from the

frequency concession to the license system. With high digital technologies cause the increasing of the TV channel, and terminated the monopoly system in television enterprise. However, the processing from the above statement affects the television entrepreneurs to focus the business factor for driving their enterprises, and it makes more competitive in the market since the principal of doing the business is advertising, and there are more than 20 channels in the digital TV. In the end, this causes the quality of TV program. All TV channels need to survive in their business, some of them might do something out of the regulations in order to convince people to watch, some of them put on the air with inappropriate content, presented the fake news (most of the fake news are the entertainment and the sport program).

The research is interested in studying and exploring the opinions of those people who watch the narrating news program. The researcher realize the importance of the region difference, so the researcher survey in the northern part of Thailand for studying the context. Because the northern part was the first region where people were getting into the elderly society, and the birth rate is at low level which will cause to the increasing of the age of dependency. In addition to, the researcher found that the family structure in the northern part has changed from extended family to nuclear family, and the size is smaller because the immigration for studying or working in the city and the divorce problem. It diminished the strength of the family institution and also lessen the role of taking care and creating the ethics for the family members.

From those reasons, the researcher is interested in exploring the expectation and the satisfaction of people who live in the northern part of Thailand toward watching the narrating news program, and the attitude towards the TV program contents in the digital system. This study will gather the people behavior in Northern part area in the issue of watching, the news analyzing, the narrating news from each station, and the opinions toward the TV program in both moderators and the program and the fact that presents if those moderators respect the regulation of being a good mass media.

II. RESEARCH OBJECTIVES

To study the behavior of watching news programs of people in the northern part of Thailand.

2.2 To survey and compare the expectation and the satisfaction of people in the northern part of Thailand towards watching the narrating news program, and the attitude towards the programming and the content of narrating news program.

2.3 To compare the category of the entertainment and the sport news, the attitude towards programming and

the narrating news program content, the expectation and the satisfaction from watching the narrating news program.

II. SCOPE OF STUDY

3.1 The scope of content: Process to survey the opinion towards watching narrating news program, and the attitude towards the program contents from people who live in the northern part of Thailand. The researcher studied in the issues which were as follows; (1To study the attitude towards the programming and the content of narrating news program. 2) To survey the expectation and the satisfaction with watching the narrating news program (3 To compare the category of the entertainment news and the sport news towards programming, the content of narrating news program, and the expectation and the satisfaction with narrating news program.

2.3The scope of the population and area: The people who live in the northern part of Thailand, and the age more than 15 years old. The total number are 1,600 people.

3.3The scope of the duration: 6 months which started from February to July 2019.

IV.METHODOLOGY

This research was the quantitative research by using the questionnaire as the tool for studying. The questionnaire was tested by IOC (0.67 – 1.00), and Coefficient Alpha Cronbach (0.87). Then, the questionnaires were used for collecting and analyzing the data.

The population in this research are the people who live in the northern part of Thailand, and the age are more than 15 years old. The population are 18,456, 000people (The expectation of the population in the mid of 2018) (The journal of population and social research Mahidol, 2018). The researcher calculated by using the formation of Taro Yamane (1967), and the result were 400 people. However, for covering all area, the researcher decided to extent to 1,600 people in 4 provinces by using the purposive sample. (400 people per one province). The purposive sampling were divided into 4 life stages, as follows; (1Baby Boomer (People who were born from 1946 to 1964) (2Generation X (People who were born from 1965 to 1979) Generation Y (People who were born from 1980 to 1997) (4Generation Z (People who were born after 1997). The 100 sample were selected for each province. The selected were as follows; Voluntary Selection and Snowball Selection.

After the researcher received the raw data, then the descriptive statistic and the inferential statistic with t-test (Independent Sample t-test and Pair sample t-test) were used for analyzed the data.

V. RESEARCH RESULTS

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The result in the title of "Survey project on opinion and attitude toward narrating news program of people in northern of Thailand" can be divided into 6 parts which are as follows;

5.1 The personal data

The result from the 1,600 respondents found that most respondents were female (1,006 people, 62.90%). The age are in 4 life periods which are as follows; Generation BB (73 – 55 years old), generation X (54 – 40 years old), generation Y (39 – 22 years old), and generation Z (Not over 21 years old). The sample are 100 people for each life period (25%), bachelor degree (765 people, 47.82%), single status (814 people, 50.90%), income per month can earn from 10,30 – 001, 000 baht (680 people, 42.50%), working in the private company (438 people, 26.90%), and most people live in the detached house (639 people, 39.90%).

5.2 The result of studying the behavior of watching narrating news programs

The result of studying the behavior of watching narrating news found that most samples used to watch the narrating news program (1,463 people, 91.40%), and never watch (137 people, 8.60%) respectively. Those samples who watched the narrating news program 1-2 months ago (1,320 people, 82.70%). Those samples who watched both in the weekday and in the weekend (677 people, 42.30%), in the period of 00.21 – 01.18 (430 people, 90.26 %), watch everyday (627 people, 39.20%). The category of the favorite news, as follows; the entertainment new (279 people, 17.40%), sport news (123 people, 7.70%), and other news, such as the international news, the criminal news, the society news, and so on (1,061 people, 66.30%), watch the news because the language is easy to understand (669 people, 41.80%), watch the news in digital system (921 people, 57.60%), and most samples believe in the narrating news in the medium rate (580 people, 36.30%).

The behavior of watching the narrating news program in the overall picture were often ($\overline{X}$ = 64.3, SD = .(659. The issue in the behavior level of watching the narrating news program was in top three, such as you always watch only your favorite news ($\overline{X}$ = 91.3, SD = .(891. The second was you always do the activity while watching the narrating news program ($\overline{X}$ = 89.3, SD = .(901. And you always alternate the channel between the narrating news program and other programs ($\overline{X}$ = 73.3, SD = .(927. The least behavior of watching the narrating news program, such as you always watch the narrating news program if only there's someone open the channel for you ($\overline{X}$ = 54.3, SD = .(019.1.

5.1 The result of studying the level of the attitude towards programming and the content of the narrating news program

The attitude towards programming and the content of the narrating news program in overall were high ($\overline{X}$ = 15.4, SD=.(467. The highest attitude were as follows; the presenting pattern aspect was in highest level ($\overline{X}$ = 21.4, SD= .(536. The second highest attitude was the clearly original location identify aspect was high ($\overline{X}$ =19.4, SD= .(636. The attitude in term of broadcasting covering aspect was high ($\overline{X}$ =18.4, SD=. 575). The attitude in updating the news aspect was high ($\overline{X}$ = 4.17, SD= .619). The attitude in term of the content of the narrating news program was high ($\overline{X}$ =12.4, SD= .(593. The attitude in term of the content in term of hitting to the point was high ($\overline{X}$ =1.41, SD= .650). The attitude in term of the balance and fairness was high ($\overline{X}$ =4.10, SD= .(695. The attitude in term of the precious news presenting aspect was high ($\overline{X}$ =4.09, SD= .5(81. The attitude in term of the narrating news programming was high ($\overline{X}$ =4.09, SD= .591). And the attitude in term of the neutrality was high ($\overline{X}$ =4./0, SD= .(695, respectively.

5.4 The result of comparing the expectation and the satisfaction with watching the narrating news program

The result of comparing the expectation and the satisfaction with watching the narrating news program can be shown in Table 1

Table 1 The comparison of the expectation and the satisfaction with watching the narrating news program

Watching the narrating news program	Mean	Std. Deviation	Mean difference	t	P-value
Expectation	4.44	.499	.537	28.583	.000*
Satisfaction	3.90	.624			

*The significance level at 0.05

From the table 1 found that people in the northern part of Thailand had the expectation in watching the narrating news program in highest level ($\overline{X}$ =4.44, SD = .499), and the satisfaction with watching the narrating news program in high level ($\overline{X}$ =3.90, SD = .624). The result of the comparison between the expectation and the satisfaction with watching the narrating news program by using pair sample t-test which found that people in northern part of Thailand had more the expectation in watching the narrating news program compared to the satisfaction with watching the narrating news program with statistically significant at the 0.05 level (P-value = 0.00)

5.5 The result of the entertainment news and sport news category with the attitude toward programming and the content of the narrating news program

The result of the entertainment news and sport news category with the attitude toward programming and the content of the narrating news program which were shown in the table 2

Table 2 The comparison between the entertainment news and the sport news with the attitude toward programming and the content of the narrating news program

Watching the narrating news program	Mean	Std. Deviation	Mean difference	t	P-value
Entertainment news	3.97	.491	.154	2.962	.003*
Sport news	4.13	.458			

*The significance level at 0.05

From the table 2 shows the result of the comparison between the news category and the attitude toward the programming and the content of the narrating news program by using independent sample t-test found that the entertainment news and the sport news had the attitude toward the programming and the content of the narrating news program with no statistically significant difference at the 0.05 level (P-value = 0.00) which the sport news had more attitude toward the programming and the content of narrating news program compared to the entertainment news.

5.6 The result of the entertainment news and the sport news category toward the expectation and the satisfaction with watching the narrating news program

The result of the entertainment news and the sport news category toward the expectation and the satisfaction with watching the narrating news program which were shown in the table 3

Table 3 The comparison between the entertainment news and the sport news toward the expectation and the satisfaction of watching the narrating news program

Watching the narrating news program	Entertainment news		Sport news		Mean difference	t	P-value
	Mean	SD	Mean	SD			
Entertainment news	4.39	5.17	4.41	.512	.015	.279	.783
Sport news	3.90	.369	3.86	.539	-.037	.566	.572

*The significance level at 0.05

From the table 3 shows the comparison between the entertainment news and the sport news toward the expectation and the satisfaction by using independent sample t-test which found that the entertainment news and the sport news had no difference in the expectation for watching the narrating news with no statistically significant difference at the 0.05 level (P-value = .783), and the people in the northern part of Thailand had more expectation with the sport news compared to the entertainment news. And it also found that the entertainment news and the sport news had the satisfaction in watching the narrating news program with no statistically significant difference at the 0.05 level (P-value = .572) which the people in the northern part of Thailand was more satisfaction with the sport news compared to the entertainment news.

From the table 3 found that the people in the northern part of Thailand had more expectation towards watching the entertainment news compared to the satisfaction by having the different average at 0.49, and found that the people in the northern part of Thailand had more expectation towards watching the sport news compared to the satisfaction by having the different average (0.55) which means both two news categories show that the people in the northern part of Thailand had less satisfaction than the expectation.

VI. DISCUSSION

From the result in the title of the survey project on opinion and attitude towards narrating news program of people in northern part of Thailand which the researcher can be discussed as the objective which were as follows;

6.1 The behavior of watching the narrating news of people in the northern part of Thailand

The narrating news program is the program that presents the important event in daily life which is different from the news reporting that focus on presenting in the present news. The language needs to be short but understanding. In the mean times, the narrating news focus on using the news content for the audiences. Behavior of watching the narrating news of people in the northern part of Thailand found that most samples watch the program every day from 18.01 – 21.00, and the frequency in watching the narrating news program everyday which relates with the research of Utomporn Sukwongkort (2014) [5] in the title of the behavior of accepting and satisfying toward the program on BBTV Channel, the result found that most samples watch the news at night time from 19.40 to 20.30 everyday (7times/week). However, people always watch the program from Monday to Friday which reflects to the behavior of watching the news for people in the country. People always watch the news every day because they want the updating news, they are able to watch both of the news and the narrating news program. People who live in Bangkok always watch the news in the weekday night due to more distant working place or school if compares to the people who live in the northern part of Thailand. Furthermore, the result found that people in the northern

part of Thailand always select only their favorite program, and doing any other activities or alternating to other channels while they are watching the narrating news program which relates to the work of Pornchai Panchaiyaphum (2016) [6] in the title of studying the behavior of watching and the satisfaction toward the narrating news program in all aspects of Modern nine TV of people in Bangkok. The result found that most people always alternate at highest level, select only their favorite program, and people expose their attitudes that the length of narrating news program is too long which they rarely watch the program to the end.

6.2 The opinion of people in the northern part of Thailand toward the narrating news, and the attitude towards the programming and the content of the narrating news program

The opinion of people in the northern part of Thailand toward the narrating news can be considered that if the satisfaction level with narrating news program is lower than the expectation, it will be dissatisfied, but if the satisfaction level with narrating news program is higher than the expectation, it will be satisfied. The issue about the opinion of the narrating news program relates to the pattern and the presenting method which were as follows; the correct data, the variety, the update, the period and duration of presenting, the neutral of the news program, and the news reporter factors, such as the language, the knowledge, and the ability of attracting which found that people in the northern part of Thailand had more expectation compared to the satisfaction with the statistically significant difference which relates to the work of Kallayapa Navarat (2017) [7] which found that the expectation was different with the satisfaction toward the E sport competition live of people in overall. When we considered in detail found that both the narrating news program of people in northern part of Thailand and watching E sport competition live were more expectation if compared with the satisfaction. Especially, in the aspect of the content of the program, and the moderator's expectation which was the same as the variety and updating of the narrating news program. The moderator is one of the attractive factors for satisfying with the program which the program might not be as expected because some moderators may lack of experience or knowledge.

For the attitude towards programming and the content of narrating the news program can be divided into 11 aspects which are as follows; the narrating news programming aspect, the narrating news content aspect, the correction of news presentation aspect, the news updating aspect, the balance and fairness aspect, the point hitting aspect, the neutrality aspect, the clearly original location identify   aspect, the language is easy to understand aspect,

the broadcasting covering and the duration aspect, and the news presenting pattern aspect. The result found that the attitudes toward programming and the content of narrating news program were at the highest level, such as the presenting pattern was in the highest level, and the second highest were the clearly original location identify aspect and the broadcasting covering and the duration aspect which relates to the work of Sunsinee Chaiprasert (2016) [8] which studied the news program administration of digital TV for the competition found that the news program administration is still focus on the concept about the reporter role with the hitting to the point presenting pattern, quickness, accuracy and update. The additional observation about the news survey issue, the traditional way to survey the news was on the reporter, but it has been changed these days because of the updated technology. Furthermore, the news programming planning from in term of considering from the people behavior in their routine and the period of watching the main news which relates to the people attitude the news programming and the content of narrating news.

6.3 The comparison of the entertainment news and the sport news toward the news programming and the content of narrating news program, the expectation and the satisfaction with watching the narrating news program

The news classification found that the entertainment news and the sport news is the soft news which means those news focuses on the entertainment news (Movie news, actors news and radio news), in the meantime, the sport news focuses on the sport event (The information of the event both before and after the competition.)

The result found that the entertainment news and the sport news had the attitude toward the news programming and the content of narrating news program with the statistically significant difference at 0.05 (P-value = 0.00). It can be described that the news presenting focuses on the accurate presentation compared to the opinion, news details are more important than blaming someone. However, in the narrating news program presents the news with accuracy and fact rather than expose the personal comment. Moreover, many programs insert the personal comment in order to add the pleasure for people who watch the program which doesn't affect to the news victims, so it is definitely reflected by the study result that the sport news had the better attitude towards the news programming and the content of narrating news program than the entertainment news.

The entertainment and the sport news had the expectation in narrating news program with no statistically significant difference at 0.05 (P-value = .783). People in the

northern part had more the expectation for the sport news if compared to the entertainment news, and found that the entertainment and the sport news had the satisfaction with the narrating news program no statistically significant difference at 0.05 (P-value = .572). People in the northern part had more satisfaction with the sport news if compared to the entertain news which relates to the news explanation of the work from Pattira Teesawat (2013) [9] which explained that the soft news is the news that focus of the entertainment incident which is easy to understand and relax, such as the society news, the entertainment news, and the sport news.

Therefore, the expectation with the narrating news program and the sport news are not different because they are in the same category. The people have the same expectation, however, when considered into the details found that people in the northern part had more expectation with watching the narrating news program and the sport news if compared to the satisfaction. It can be concluded that both two news category, the people in the northern part had less satisfied in watching the news than expected which is not related to the work of Kultida Srisamut (2015) [10] which studied in the title of the expectation the accepting behavior and the satisfaction of people in Bangkok toward LINE TV application, and found that the result of comparing between the expectation and the satisfaction from accepting the LINE TV application was statistically significant difference at 0.05 which the average level of the satisfaction was higher than the expectation from accepting the LINE TV application. Watching the narrating news program, the entertain news, and the sport news is the reporting that need focus on the news reporting ethics while most programs in LINE TV application are the entertainment programs, such as the TV series and show TV program which are more likely to have the variety patterns and attractiveness that make people to more enjoyable and satisfying than they expected

VII. THE SUGGESTION FROM THE RESEARCH RESULT

7.1 From the result found that people in the northern part of Thailand had the attitude toward the news programming and the content of narrating news program in the neutrality at the least level, so the   related organization should examine the content of the TV station. They should give the important to the   accurate presentation, not to expose the personal comment for confusing with the fact, not to distort the data, present the news with the neutrality which will be the benefit to people.

7.2 People in the northern part had satisfaction with watching the entertainment news and the sport news less than expected. Therefore, the narrating news program should have the interesting pattern. It may use the program pattern, or using the expert in each department.

Especially, the moderator, the station policy, and the officers will affect to the point, or the viewpoint that will be more benefit for the people who watch the program that any other programs, such as using the audio and visual equipment for presenting the news, or using the info-graphic or online platform in the cartoon pattern which is easy to understand.

7.3. In the content of narrating news program presentation always bring the data from online media, such as Youtube, Facebook, and Instagram etc. Therefore, the news program should aware of presenting the news or believing the news from the online media which is the new sources was clear becaue to the people's attitude that identify the clearly original news was in high level.

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Development of Academic Administration Graduate of Faculty of Education Mahachulalongkornrajavityalaya University

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Abstract— The purpose of this research article was to propose development of academic administration graduate in Faculty of Education Mahachulalongkornrajavidyalaya University. Mixed methods research with three steps was conducted. Step 1 was to study academic administration graduate in Faculty of Education Mahachulalongkornrajavidyalaya University using documentary study and interview 15 administrators and lecturers. Step 2 was to study the process of academic administration graduate using seminar with 12 experts. Step 3 was to develop and evaluate process of academic administration graduate using focus group discussion with 5 experts, and evaluated by conducting try out in Faculty of Education. There were 30 administrators and lecturers as a target group and were selected by purposive sampling. Research results indicated that process of academic administration graduate in Faculty of Education Mahachulalongkornrajavidyalaya University was eight methods of administration (Atthavithi) which consisted of 1) curriculum administration, 2) learning process management, 3) educational media, innovation and technology administration, 3) management of learning sources, 5) learning assessment, 6) educational supervision, 7) research for educational quality development, and 8) quality assurance system. Evaluation results for process of academic administration graduate in Faculty of Education Mahachulalongkornrajavidyalaya University was shown overall at the highest level.

Index Terms— Development, Academic Administration Graduate, Faculty of Education, Mahachulalongkornrajavityalaya University

I. INTRODUCTION

Changing and competition from the 20th century world to the 21st century world,or in current world, there are various changes establish policies by creating intelligence and innovation and using knowledge and research mechanisms to develop, must have a strong higher education system. There is a driving force that makes every organization adapt for stable progress and is sustainable with management in accordance with the change and strive for excellence in all areas. The key factors that will be able to face the changing conditions and the challenges that have already arisen and what will happen in the future is the quality of the people because in the present age and in the future the main engine for driving prosperity is not land, labor, raw materials, or investment, but it will be wisdom and knowledge. As the result,current world society is a knowledge-based society [1]including to comply with the policy model Thailand 4.0 according to the economic development plan and the National Society No. 12 (B.E.2560-2564), there are changes in society in various forms having an impact on education especially in Thai society. Education is necessary to develop personnel to keep up with the changes that occurdeveloping quality people in order to become a vital force in the country's development. Universities are the most important educational institutions in the country, providing knowledge and developing learners in various fields in order to be ready to go out and live in the society as well. The production of personnel to the society is not only improving and promoting knowledge and professional competence, but also in cultivating a positive attitude towards the profession. It also changes attitudes, values and beliefs that have a great influence on professional practice.If a person has a positive attitude towards his or her profession, it will make the task of doing something easy and caring for the performance of their duties to the fullest. There was also a sense of pride and joy at work [2].

In higher education, it is an education that elevates thinking, intelligence and expression that is a high-level manpower to the country which is a person who wants to increase their potential, increase their knowledge and raise their standards for higher efficiency. This will lead to academic and professional advancement. The influencing factor is the social, economic, age of education received.

Everything is important because of the fact that individuals come to study in order to gain knowledge, abilities, as well as skills that are suitable for the degree that each person comes to study and upon graduation can find a job that meets their knowledge, abilities or skills have studied [3].

Therefore, knowledge generation is considered to be the most important objective of higher education because education at this level is a combination of experienced individuals and has a more academic basis than any other institution in society. The burden of academic management as well as professional development is essential because education at other levels especially at the elementary level and secondary education, too. The academic necessity at both levels mentioned is not profound and concentrated enough to be ready in order to develop academic knowledge[4].

Mahachulalongkornrajavidyalaya University, which is an autonomous university, is a juristic person. There are principles and rules for the development of personnel according to the Mahachulalongkornrajavidyalaya University Act B.E. 2540 (1997) stipulated in Section 6 that "the university shall be an educational and research place. The objective is to study, research, promote and provide Buddhist education to monks, novices and laymen including the preservation of arts and culture [5] later, the Graduate School of Mahachulalongkornrajavidyalaya University has been established based on the practice of the order of the Synod Education of the Sangha University in 1969 by the Graduate School of Mahachulalongkornrajavidyalaya University has four missions: producing graduates, research and development in promoting Buddhism and providing academic services to society and in the preservation of art and culture [6].

The Faculty of Education opened in 1961 as the second faculty following the Faculty of Buddhism at present, Department of Educational Psychology and Guidance Department of EducationalAdministration Department of Curriculum and Instruction Bali Preparatory School Pali Satit Education School. There are many other work groups or special projects with the educational management objectives of the Faculty of Education as follows:1) to provide education for monks, novices and general public to have knowledge and ability in the science of teachers, management of education, teaching and propagation of Buddhism, 2) to produce graduates who have good practice, inquisitiveness, thinking, and being a leader in mind and wisdom, known to sacrifice for Buddhism and society, 3) to apply and develop innovation and technology for education, research and service, 4) to promote and disseminate knowledge of education and Buddhism to society, and to preserve art and culture maintain identity and Thai wisdom [7].

The role of the university in the status of a higher education institution has to pioneer knowledge. This gives people additional knowledge and points them knowledge to be beneficial in social development. Undergraduate education is for the purpose of utilizing basic knowledge while graduate studies, which are higher education arrangements in higher education institutions to develop, seek and apply knowledge and expertise in a deep area to develop the work can solve problems in various areas [8] with quality graduate education. There are four factors that will be identified, namely, curriculum, teaching and learning system, teachers and students [9].

The quality of the graduates to be good depends on the graduate administration in curriculum management, library, information technology and modern media, and adequate budget highly competent personnel by field coordination and cooperation among similar institutions. Administrators should seek external funding [10] by providing higher education. Knowledge is a key component, or it could be said that academic administration is the first priority of the administration of higher education because academic administration is the main task that is essential to achieving the goals of the school administration and the quality of the learners [11].

It is the reason to develop academic administration at the graduate level of the Faculty of Education because academic administration is the most important part of the management of higher education with such problems and reasons. The researcher is interested in researching Development of Academic Administration Process for Graduate Studies, Faculty of Education, Mahachulalongkornrajavidyalaya University. This will benefit the academic administration process at the graduate level, Faculty of Education, Mahachulalongkornrajavidyalaya University to serve as a guideline for administrators to apply in academic administration which will benefit the development of people, society and the country in the future.

II. RESEARCH OBJECTIVES

The purpose of this research article was to propose development of academic administration graduate in Faculty of Education Mahachulalongkornrajavidyalaya University.

III. RESEARCH METHODS

This research was mixed methods research with 3 steps of research methods as follows: Step 1: Study academic administration at the graduate level, Faculty of Education, MahachulalongkornrajavidyalayaUniversity by studying documents related to academic administration at the graduate level, Faculty of Education,MahachulalongkornrajavidyalayaUniversity and interviewed 15 of administrators andteachers and data was analyzed by using content analysis.

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Step 2 Study the process of academic administration at the graduate level, Faculty of Education, Mahachulalongkornrajavidyalaya University by studying documents related to the principles and methods of postgraduate academic administration and organized seminars for stakeholders and 12 experts and analyzed the data with content analysis.

Step 3 Develop and evaluate the academic administration process at the graduate level, Faculty of Education, Mahachulalongkornrajavidyalaya University by developing the process of academic administration at the graduate level with focus group discussion group of 5 experts and evaluating the graduate academic administration process with an experiment in the Faculty of Education. There were 30 administrators and teachers in the research target group. The statistics for data analysis were percentage, mean and standard deviation.

IV. RESULTS

Academic administration process at the graduate level, Faculty of Education, Mahachulalongkornrajavidyalaya University is Atthavithi, it is an academic administration process of 8 methods as follows:

1. Curriculum administration consisted of 1) Study, analyze academic curriculum documents, disciplines, problems and needs of society, and community and local, 2) analyze the strategic environment of the university following to the health assessment to determine the desired vision, mission, goals and characteristics by the participation of all parties, including the relevant committees, 3) create a curriculum structure, and given in the course of study in line with the vision goals as appropriate, 4) appropriate curriculum implementation in teaching and learning management and curriculum administration, 5) curriculum supervision and curriculum evaluation, 6) follow up and evaluate the curriculum implementation every 5 years or as appropriate of the curriculum, 7) improve and develop the curriculum as appropriate.

2. Learning management process consisted of 1) mixing knowledge to balance cultivate virtue, 2) arrangement of teaching supervision for staff professors in the field with emphasis on supervisory cooperation and assistance in the form of peer support, to develop joint teaching or other forms according to ability, 3) setting the atmosphere and environment and learning things to facilitate the organization of the learning process, 4) bringing local wisdom or network of parents of local communities to participate in Teaching and learning as appropriate,5) promote the development of teachers on a regular basis to develop the learning process as appropriate, 6) encouraging teachers to organize learning processes by organizing content and activities in accordance with the interests. The

aptitude of the learners is to practice the skills of thinking process, situation management application of knowledge to prevent and solve problems. Learning from real and practical experience continuous promotion of the love of reading and keen on knowledge, and 7) encouraging teachers to create plans to promote learning management with focus on students.

3. Media Management, Innovation and Educational Technology consisted of 1) evaluation of the development of media use innovation and technology for education, 2) provide media and technology for use in teaching and learning management and academic development, 3) coordinate production and development of media, innovation and technology for teaching and learning, 4) study and analyze the need for media and technology for teaching and learning management and academic administration, 5) promote production, development of modern teaching and learning materials and innovations.

4. Management of learning resources consisted of 1) preparing documents to disseminate learning resources for university personnel, organizations, departments and other universities, 2) Development of new learning resources and coordination with other universities, organizations, agencies and the institution that provides the study, 3) encouraging teachers to use learning resources within the university and outside the university in organizing the learning process, and 4) survey of learning resources related to the development of educational quality in both the university and the local community.

5. Evaluation consisted of 1) establish procedures for evaluating results, evaluating results for study requests in accordance with educational standards learning, learning unit, learning management plan, and organizing learning activities, 3) encouraging teachers to measure results and assess learning and teaching results with emphasis on real assessment of the processes, practices and results.

6. Educational Supervision consisted of 1) organization of academic supervision and teaching system within the Faculty of Education Mahachulalongkornrajavidyalaya University, 2) conducting academic supervision and teaching in a diverse and appropriate format for the Faculty of Education MahachulalongkornrajavidyalayaUniversity,3) Monitoring and coordination to develop educational supervision of the Faculty of Education MahachulalongkornrajavidyalayaUniversity, 4) an exchange of knowledge and experience in managingeducational supervision within MahachulalongkornrajavidyalayaUniversity including the education supervision network in other universities, and 5) evaluating the results of educational supervision in the faculty of education Mahachulalongkornrajavidyalaya University.

7. Research for Educational Quality Development consisted of 1) research analysis, principles of management and academic quality development in the overall of the Faculty of Education, Mahachulalongkornrajavidyalaya University, 2) coordinate study, analysis and research as well as dissemination of research results including the development of the quality of teaching and academic work with universities, organizations, agencies and other institutions,and 3) encourage staff teachers to study, analyze, research to improve learning quality for each field of study.

8. Quality Assurance System consisted of 1) setting criteria for assessing the achievement goals of the Faculty ofEducation MahachulalongkornrajavidyalayaUniversity according to educational standards and indicators of the Ministry ofHigher Education, Science, Research and Innovation Criteria and assessment methods of the Office for Educational Standards and Quality Assessment, 2) organization of the Faculty of Education structure to support the organization of the quality assurance system within Mahachulalongkornrajavidyalaya University, 3) implementation of work development according to the plan and follow up internal audit and assessment to continuously improve and develop,4) coordinating with universities and other agencies to improve and develop an internal quality assurance system and the development of educational quality according to the educational quality assurance system, 5) coordination with the Office of the Higher Education Commission Ministry of Science for the assessment of educational quality according to the quality assurance system, and 6) planning of educational quality development under the educational quality assurance system to achieve the achievement goals of the Faculty of Education, Mahachulalongkornrajavidyalaya University.

V. DISCUSSIONS

The researcher found important points to be discussed. The process of academic administration at the graduate level of the Faculty of Education Mahachulalongkornrajavidyalaya University is Atthavithi, it is an academic administration process in 8 ways: 1) Curriculum Management, 2) learning management process, 3)innovation media management and educational technology, 4) learning resources management, 5) evaluation measurement, 6) educational supervision, 7) research for educational quality development,and 8) quality assurance system. These eight methods of academic administration are very important principles in academic administration and cover education management at the tertiary level.

As Uthai Boonprasert said that academic work is the main task and the biggest task of the system. It is the work at the heart of the school, [12] related with Pichai Sangiemjit's idea that academic administration is of great importance and is considered to be the main task in the educational administration of the school. This is because education is the foundation for human development. To be able to seek knowledge keep pace with the world [13], related with Fry, Ketteridge, and Marshall, academic administration is the implementation of all activities in the school that are involved in the development and improvement of the teaching and learning of students. It works well, is most effective [14]as the Chankanart Cheunchei suggested that continuing education in higher education institutions is an important component. It consists of philosophy and principles target group, aim, structure, management system, teaching course methods of conducting studies educational materials and learning resources monitoring and evaluation grading and transfer of grades [15]. It was also found that it was consistent with the research of Nanthawan informed that the research results showed that Model of Effective Cooperative Academic Administration of Private Vocational Colleges in Northeastern Region consists of curriculum development work measurement and evaluation work instructional media and academic services and libraries consultation teamwork or team building quality control [16].

According to Pornthep Saranan's research that the research results showed Development of Academic Management Model Rajamangala University of Technology Suvarnabhumi. It consists of supervision and personnel development, academic promotion and control teaching and learning academic service courses. The measurements and evaluations [17] were consistent with research by Phrakrupalad Thanakrishna Kittipañño (Ritnaka), Suddhipong Srivichai, Peeravat Chaisuk. Academic administration in the temple charity school in Buddhism consists of course Administration Measurement and EvaluationManagement, Instructional media management, EducationalSupervision andconducting teaching [18] and related with the research of Rattana Sanitnoi, Narong Pimsan, Sirikarn Tanawutpornpinit where the research results showed that the academic administration of the three-language schools at the primary level consists of providing an atmosphere that facilitates learning, internal quality, assurance curriculumdevelopment, internal supervision, measure organizing, learning experiences, and the production and use of media technology [19].

As for the evaluation of the academic administration process at the graduate level, Faculty of Education, Mahachulalongkornrajavidyalaya University. Overall, it is at the highest level. It is because this research has a mixed research process both quantitative research and qualitative research and there are 3 research steps: Step 1: studying academic administration at the graduate level, Faculty of Education, Mahachulalongkornrajavidyalaya University by

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studying documents and interviewing 15 executives and professors. Step 2: studying the process of academic administration at the graduate level by organizing seminars, 12 stakeholders and experts, and the third step, developing and evaluating the graduate academic administration process. It was developed with a discussion group of 5 experts and evaluated by using experiments in the Faculty of Education. There were 30 administrators and professors in this research population. It is related to with Saman Asavapoom said that the inspection by a qualified. The researcher will present the developed model to 15-20 experts with a feasibility and feasibility assessment form, as well as additional recommendations and verified by experiment in which the researcher conducted a trial using the model that was developed in real conditions or simulated events. According to the design schemes to observe, collect information and opinions to relevant persons to be used in the further improvement of the model after obtaining the data from the quality inspection and the said format. The researcher should make further improvements along with a summary of information, comments and suggestions that are important to the model and its further application [20].

VI. RECOMMENDATIONS

A. Recommendations for Practices

1) Government and the Ministry of Higher Education, Science, Research and Innovation. The policy should be established to promote and support academic administration at the graduate level of the Faculty of Education, Mahachulalongkornrajavidyalaya University.

2) Mahachulalongkornrajavidyalaya University Budget should be supported for academic administration at the graduate level, Faculty of Education, Mahachulalongkornrajavidyalaya University for more efficient teaching and learning management.

3) Faculty of Education, Mahachulalongkorn-rajavidyalaya University should apply the body of knowledge from this research as a policy on academic administration at the graduate level.

B. Recommendations for Further Research

1) From results of this research, Mahachulalongkornrajavidyalaya University should be defined as a vision and strategy for academic administration at the graduate level in the Faculty of Education and other faculties.

2) From results of this research, Faculty should be developed into a complete manual for use in academic administration at the graduate level in the Central Education Faculty, Campus and Sangha College.

CONCLUSION

From this research articles, the purpose of this research was to propose the development of the process of postgraduate academic administration, Faculty of Education, Mahachulalongkornrajavidyalaya University. It is a research that combines both quantitative research and qualitative research. There are 3 research steps which are: Step 1: studying academic administration at graduate level with a study of documents and interviews. Step 2: studying the process of academic administration at graduate level by organizing seminars for stakeholders and experts, and Step 3: developing and evaluating the graduate academic administration process by developing a discussion group with experts and evaluated by using experiments in the Faculty of Education. The research result is an academic administration process at the graduate level of Faculty of Education, Mahachulalongkornrajavidyalaya University, whichis Atthavithi. It is an academic administration process of 8 methods, consisting of 1) course administration, the existing curriculum administration has been developed to be appropriate for the current situation. It consists of a purpose which will identify the conduct of the student and content in teaching and learning management including the criteria for the selection of subjects and the criteria for teaching and teaching appropriate, 2) the learning management process, developing the learning process with a learner-centered focus. There is an opportunity to seek knowledge to learners and the teachers change the chapter from the donor to the partner of knowledge and provide learning experiences for learners appropriately and should have a variety of learning arrangements. 3) Management of innovative media and educational technology consisted of management of media, materials, equipment and methods for transferring knowledge, skills, experience from knowledge sources to learners in order to learn faster and more efficiently by saving study time and provide learning motivation for learning using several educational innovations both devices and online media. 4) Management of learning resources development of learning resources to create new knowledge that resulted in the learner being a person of learning, able to acquire knowledge for themselves from various learning sources in modern times. 5) Evaluation measurement, it is the evaluation measurement with the learning outcomes assessed, it has to be conducted in accordance with the content being taught, learners' development, behavior, observation, behavior, learning activities and testing along with the teaching and learning process. Tests must be measuredboth measuring and evaluating, both knowledge, ideas, abilities, skills, attitudes, morals and ethics. There are a wide variety of measuring instruments. The results are measured and evaluated continuously. 6) Educational supervision, the teacher in the supervisory role advises learners on how to improve the teaching and use of teaching materials with emphasis on supervisory process skills consists of an assessment of working conditions Ordering the tasks to

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do Coordination design, and 7) research to improve educational quality research to improve educational quality by allowing teachers to integrate research processes or integrate them into teaching and learning management to develop learner quality. Learning research process is a part of the learning management process. This starts with analyzing problems, planning, solving problems, implementing solutions, collect information, summarize the problem solving, report and apply the research results, and 8) the quality assurance system. Quality assurance system development by doing a systematic activity or mission according to the plan with qualitycontrol qualityinspection, and quality assessment until causing confidence in the quality and the standard of indicators, systems and processes of production, productivity, and results of management studies effectively and efficiently as in Fig.1.
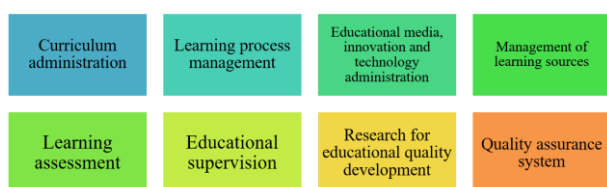
Fig. 1 Development of Academic Administration Graduate of Faculty of EducationMahachulalongkornrajavityalaya University

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Development of Spiritual Leadership in Educational Institutions Integrated with Buddhism

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Abstract—This academic article aimed to propose development of spiritual leadership in educational institutions integrated with Buddhism. Data was collected by using documentary study form the content related to spiritual leadership, educational management and Buddhist principle. Results of the study showed that a successful leader or executive or a good supervisor was one who can apply leadership principle in the management which can adjust the environment in order for subordinates or associates to share their minds to work for the most benefit of the performance. The management has leadership, as can be seen from the confidence and trust in the leader by providing support and assistance from subordinates, giving freedom to work, and hearing opinions from subordinates. Considering current leadership concepts such as visionary leadership, transformational leadership, charismatic leadership, and cultural leadership were found to be coherent in the idea that leaders have sharp vision and a future vision that is growing spiritual leadership. Therefore, it is very popular in today's society because it is sensitive not less than religious aspect. It is an effective leader in educational institutions, thus being able to provide education to excellence in the 21st century which emphasizes virtue, the strength, and deep commitment of the people in the organization which consists of important principles of oneself governance, personnel governance and work control.

Index Terms—*Leadership, Educational Institutions, Buddhist Principles*

I. INTRODUCTION

At present, Thai education management has always evolved. It maybe because there are factors both inside and outside the country causing changes in society, that is internal factors are caused by the need for social development to be prosperous and modern. The external factors are caused by the current changes of the world society, both economic and political as well as communicating with each other causing Thailand to adapt to modernize, and be aware of the change in order for Thailand to be born development to be on part with other civilized countries as well as receiving international education reform trends to become an ASEAN community in the year 2015, the model of educational change is a matter that all sectors must be aware of, and adapt to keep up with the changes in the midst of the current of being globalized to accept such changes. Ministry of Education which is responsible for the management of education has set the objectives of the provision of basic education that the management of basic education. It is the educational management for the graduates to develop physical, intellectual, mental, emotional and social development. It is suitable for age having knowledge and virtue to live happily together in society based on the Thai identity with dignityand can be proud of being self-reliant, having the skills to continuously seek knowledge, basic skills for a career, a vision that is broad enough to be aware of the changes that will take place in the global society,and having a correct conscience, the state will provide at least 12 years of basic education thoroughly to everyone with qualityby the use of educational innovation and technology, as well as a variety of formats to meet individual and local differences.

II. DEVELOPMENT OF SPIRITUAL LEADERSHIP

Spiritual leadership refers to the ability of school administrators to motivate or lead others,visually is the creator of hope, the power of faith, and trust in performance.

Spiritual leadership to be a leader who values vision, mission, and promotes a balance of work needs that keep everyone in the organization involvedin taking responsibility for their work as if they were at home that belief in the development of oneself and subordinates to meet the important goals of the organization. Therefore, spiritual leadership fosters people, enhancing the meaning of being and a positive attitude at work [2].

The development of future professional educational leaders, spiritual leadership is needed because effective leadership is the key to managing an institutionand it is a key influence for all educational stakeholders. Spiritual leadership also includes leaders who teach correct principles, application of governing techniques. Spiritual leadership is the template for the development of the organization of change. Positive organizational development also improves the quality of human life not only being able to coexist, but also to enhance efficiencywhich emphasizes moral, strength and deep commitment of the people in the organization.

Spiritual leadership is a theoretical inner change (change service leader, spiritual leader,and ethical leader), which has been popular in many industries for over 10 years, most of them in the healthcare industry. As a response to satisfaction, awareness of the differences of the organization understanding of the spirit of being in which education in modern times is delicateto awaken the spirituality of life in Thailand and abroad in the areas of complete well-beingof the body, mind, society and spirit[3].

Spirituality means having a high mind, that is to have goodness, non-selfishness, wisdom, access to higher things. Mind or spirit is a neutral word. The animal has a soul or spirit, but has no spirit or high spirit. It can be said that animals have a spiritual body, while humans have spiritual, social, spiritual, so spiritual can use the Buddhist meaning to refer to wisdom, or in a universal or other way of religion, it corresponds to the word spiritual.

III. PRINCIPLES OF DEVELOPMENT IN EDUCATIONAL INSTITUTIONS

Development is a trend for the prosperity of the West, developed countries has flowed to the underdeveloped or less developed countries. The word development has therefore been used to describe progress on par with western countrieswhich has a meaning covering many aspects. The development concept focuses on economic growth. Changing to modern conditions or industrialization is a formulation. Methods and strategies for developing the country are different. The concept of development, therefore, covers economic, social, political and cultural aspects [4] that will make the people's lives happily. Comfort well-being, development of arts, culture and mind and peaceinwhich addition to being subject to exposure to material factors meet physical needs.People still want to be developed in education. Good environment recreation and development of various cultures and mindsets, all these needs are sometimes called "Quality development", which is a challenge to the executives, leading to the success that happens. This will help reduce and eliminate educational crises such as the quality of different schools standardized learner quality inequality, learners lack the learning process to develop work continuously throughout their life and inequality in accessing educational services.

IV. Principles leading to sustainable education development

Development in the Buddhist perspective,real development is: where we are todayorhas its development reached its peak? What is the best thing that one human or all human beings? Who have emerged in this world will receive, whether it be wealth, wealth, and enormous houses? Possession is enormous, isn't it? But these things have been human for a whileis that while he lives only? During the human sleep or death, a human being does not take a single piece of what he owns. The world in which we live today can be seen as a material way. Humans are intelligent and intelligentapply knowledge to rapid development. There are comfy appliances that no animal can develop,modern medical equipment. That help extend the life for a long time as well as developing regulations to control unwanted behaviors within the framework of society so as not to cause disturbances to each other [5] but if you look at the other side, all of them, It doesn't create real happiness for humans, is it? The more people who have it, the more they want to have it. People without tried to expand in order to have the possession. If this is the case, there is no human need.

In the end, human beings will strive to get as much of what they want as possible. As such, the current remaining resources may not be sufficient to meet human needs. As Mahatma Gandhi said, "Resources in this world are sufficient to nourish the whole world, but it is not enough for only one greedy person."Thus, the development of a Buddhist perspectivesee that human development will lead to sustainability in order for the future generations to live as happy as the present generation without compromising their abilities, it is difficult to use resources for living. Development that leads to sustainability. There should be a full development in 3 areas:

1. Behavior and way of life as well as making for a living, production practices for competitive consumption coexist with the environment. Good behavior is a channel for the mind to develop and it helps intelligence grow.

2. Psychological aspects such as moral development, the strength of mind, and a beautiful state of mind including happiness, contentment, freshness, cheerfulness and mind are the indicators of behavior and state of mind. That is satisfied and happy, it makes the behavior stable Intelligence to work effectively and develop requires an ideal mental state, especially human development for sustainable development.

3.Intelligence is knowledge and understanding of reasonsaccess to truth, including beliefs, attitudes, values and ideas, knowledge, understanding, concepts, attitudes and values that is a moderator of behavior and mind to fit perfectly is a conductor of freedom and peace, which must be developed in tandem and based on both behavioral and mental development. Buddhist wisdom emphasizes the balance between human and naturewhich includes

psychological values which emphasizes on moral training in society along with material development.

Therefore, sustainable development has an integrated look is to cause a holistic means that all elements that are involved must be fully integrated and there is another characteristic and equilibrium (balance), or in other words, the human activity in harmony with nature.

Key principles that help address challenges arising as a result of human development aimed at achieving comfort, especially the happiness of the individual by neglecting the problems arising from the development are degradation of natural resources injustice, the introduction of the five precepts and the basics of the doctrine to do so, it can help to achieve sustainable development as detailed below.

1. The first precepts, no slaughter, shall not persecute animals, and non-violence of any kind is a precepts on the principles of human rights and the environment, protecting human life including not encroaching on animals and nature

2. The second precepts prohibit stealing. It is the precepts on the guarantee of non-corruption, not corruption. It is a fair message that helps society achieve fair use and distribution of resources.

3. The third precepts prohibit sexual misconduct. It is a guarantee of the security of the family institution, including the protection of children, women and youth so that all people can be treated as human beings, not as a means of production. In addition, the family is the most important young unit in society and creating a complete human being.

4. The fourth precepts: refrain from lying without truth. It is a guarantee of freedom of the media and news, that is, it must not be false information to accuse each other. considered a problem of the whole world because of a world full of freedom but a lack of a code of conduct for freedom.

5. The fifth precepts to abstain from drinking and intoxication and to harmful drugs as a guarantee of health and consumption, this does not mean only alcohol consumption, drug consumption, but includes all forms of intoxication such as food consumption, four factors. Consumption including consumption of identity, the values of having a brand by Buddhists speaking of consumption that human beings have to consume consciously, this precepts will save the world from consumption at an accelerated rate too fast and will slow down the deterioration of environmental resources.

It can be seen that the Five Precepts can be applied to help ensure sustainable development practices including the creation of justice and human rights in the world society as well as the supervision of human behavior in the choice of consumption of things with a reason not to have a negative impact on society and the environment, now and in the future [6].

Development of these 3 areas must rely on each other which if developed in all three areas will bring to life the virtues of which will lead to access to true freedom and peace. Development or practice of these 3 areas, we call it the Tri-Sikkha, which consists of meditation, wisdom, and

Buddhist concept, support each other than the way of the human world has been defined in many ways, because of the sustainable development under the Buddhist concept, there is no penalty, no harm or side effect on anything, during development, It has only beneficial values, supporting both human nature and the world.

Education for all, people for education which Thailand has given importance to the development of sustainable education for all people has always been whether they are Thais, ethnic groups, priests, women, children or even the elderly. Whether they are Thai people by blood or people who come to work or live in Thailand, if they are entitled to education in the country everyone [7].

Education management must be to develop. Thai people become complete human beings, body, mind, intelligence, knowledge, morality, ethics, and culture of living, able to live happily with others. Developing the work potential of the organization personnel should not focus on only one aspect of job optimization. If it is necessary to organize psychological development training as well. By raising awareness, moral, ethical aspects, and goodness occur in the person. Making it a person worth working in the organization to be a noble person is an internal treasure that has 7 noble virtues: confidence, belief with reason, morality, keeping the body clean and pure, doing evil, moral shame, fear of evil 5, great learning, being a person who has studied a lot, knowing an accurate understanding of the good and bad, right and wrong, you blame the benefit, not the benefit, know, think, know, consider, the development of the organization must be covered and consistent with the organization's environment at all times, good organization development must focus on building a common understanding of the personnel in the organization. Let everyone participate in the development, you can see that the main objective of the organization development not only focusing on solving problems that arise, but will focus on enhancing the capacity of the organization in every by using process goals and outcomes goals as the main character [8].

Organization development in terms of manpower development, personnel in the organization are considered an important resource because humans are at the center of development, regardless of the development of human development develop human beings into perfect human beings that must be developed initially to add value to personnel. This is usually done through development and training through the process of developing and promoting personnel to have knowledge, competence, understanding, and operational skills have a positive attitude, a better quality of life, build employee engagement with the organization, flexibility in personnel management as well as having an attitude and good behavior in order to provide better working efficiency. Human resource development is a change in the process of thinking, behavior and practice to be more prosperous both in terms of knowledge, skill to increase efficiency and effectiveness of personnel, both for themselves, to work, to the organization and society, to

achieve physical growth, verbal and mental according to the nature of the organization according to Buddhism developed ones will be a driving force for economic, social and national development [9].

V.PRINCIPLES AND METHODS OF SPIRITUAL LEADERSHIP DEVELOPMENT

Executives, in addition to having managerial skills must also be the one who leads the vision strength and creativity that they are responsible. Executives who will lead are interested in what is possible,it is self as well as others want to achieve and have a vision of the importance of what is doing now. Leaders get involved in organizational activities with great physical and encouragement, bring strength in need and resolution, and enthusiasm towards that work as well. These features enable executives to be a spiritual leader who is different from others is not just a leader. They also need to bring new ideasand belief in creative change to the organization [10]: 1)Establishment a committee for education at all levels from the policy level, education area level, and school level with representatives of the government, private sector, local government organizations, alumni, priests, social institutions. 2)Providing private sector, local government organization, family, community, community, organization, religious institution, establishment and other social institutions to have the right to provide basic education and the right to receive academic support government subsidies and tax exemptions. 3)Public education management affecting the private sector. Public hearings must be conducted. 4)Providing opportunities for funding and resources for education from all sectorswhich means that people of all sectors can come to support scholarships and resources for education in various educational institutions. 5)Participation in monitoring the teaching quality of teachers, reflecting to society from time to time by parents.

The education management of Thailand has always been consistent with internationalizationat the same time, it is based on the Thai identity in the context of society, religion, culture, especially the philosophy of sufficiency economyand the process of participation. That can make Thailand and the Thai people more sustainable up to the present despite having suffered from both the Thai crisis and the world crisis.

VI. METHODS AND PROCEDURES FOR EDUCATIONAL ESTABLISHMENT DEVELOPMENT

1. Participate in thinking schools, learning sources, creating a community of teachers, administrators, and school directors,and community stakeholders to acknowledge the problems and needs of learners, parents, guardians and communities and joint vision of educational institutes for successful educational management.

2. Make decisions when there are activities that require comments and joint decisions affecting the management and stakeholder interests of learners and the public. Teachers,

administrators, school directors and stakeholders will make decisions together on the basis of information about educational institutions and communities.

3. Co-planning, joint operation planning according to the establishment of the community both formulate a strategic plan, development plan, action plan, and project assignments, activities meet the needs of the learners and the common community.

4. Join the action when assigning any operation of the school and learning resource caused by common thinking plan together the administrators, teachers, educational institutionsand stakeholders have operations in that activityaccording to the shared mission.

5. Take responsibility when there are activities to be performed and results of operations, both positive and negative, the administrators, teachers, school directorsand stakeholders will be responsible for the results that occur together without leaving it to the problem of any one. Such responsibilities are based on the level of responsibilities, such as executives having administrative duties. The teacher is responsible for teaching, provide learning, experience, and learning development, wisdom, teaches parents, co-introduce, monitor the learning of your children communities and organizations are responsible for supporting learning and resource mobilization activities.

6. Co-solve problems when there is a problem arising from the administration or operation of the administrators, teachers, school directorsand stakeholders. There are ways to find a solution together to accomplish this well.

7. Join in monitoring and evaluationduring and after operation, administrators, teachers, educational institution directors and stakeholders are monitored and evaluated for improvement and development of joint work in learning evaluation activities. Parents can also take part in the assessment of learners.

VII. FACTORS FOR SUCCESS EDUCATIONAL DEVELOPMENT BY SPIRITUAL LEADERS

1. Leadership of both executives and community leaders with opportunities for participation from all sectors. It has leadership qualitiesand behavior of leaders, dare to think, dare to decide, dare to take responsibility and solve problems together according to the principles and processes of the project [11].

2. Responsibilities of the duties of the personnel at each levelon the basis of reasoning that they know their duties and work towards their goals.

3. Recognition and respect for each otheron the basis of human rights and equality among teachers, administrators, community representatives and different sectorsin acting for their children.

4.Systematic learning according to plans and activities and the lessons were taken together leading to the expansion of the school to family and community and the intensity of local and community.

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5. Use of knowledge and operational morality both in matters of responsibility, honesty, discipline, patience, generosity, or sharing with one another

6Independence of educational institutions and communities in operating under the academic support of the experts and the goals agreed upon together.

7. There is supervision and support from the project management departmentwithout intervention and assistance on issues that cannot be resolved by schools and communitiesor upon request.

Educational institution management for growth developed by spiritual leaders, it is an educational arrangement for the development of everyone to take part in education management. Educational institution development recognize the problems and needs of their own locality and communityto jointly develop learners, personnel and individuals in the organization with a participatory process including thinking together, planning, making decisions, solving problems, sharing responsibility follow up and evaluate and join in appreciating the achievements together according to the context of Thai society according to the sufficiency economy philosophy, both in terms of rationality. Modesty immunity on the terms of knowledge and virtue leads to success and integrate them into the learning system, both in the informal system and at the leisure is a shared learning in the whole community with educational institutes or organizations that provide education as a joint operation base [12].

CONCLUSION

Spiritual leadership is a style based on the development of the potential of the person from the inside out by developing as a person who grows in faith and virtue as fundamental. The strength of faithhas become the driving force for the right thing and is a real benefit to the public and this life. It has become an inspiration to the people of the organization to share in their dedication to the true goals and values of the work without forcing or using material motives as the location. This spiritual leadership trait is needed for school administrators, teachers, parents or holistic participants in order to initiate the development which is beneficial to the children of youth who will have access to educational opportunities. Good education is quality through spiritual leadership. It is an important concept in the integrated development for sustainability.

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A Model of Learner Development Activity Arrangement according to Buddhadhamma for Students in Schools under the Secondary Educational Service Area Office

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Abstract— The purposes of this research were 1) to study the condition of learner development activity arrangement for students in schools under the secondary educational service area office, 2) to develop a model of learner development activity arrangement according to the Buddhist principles for students, and 3) to propose a developed model. Mixed methods research was used for research design. Data were collected by using documentary study, in-depth interview with ten school administrators and focus group discussion with nine experts. The research instruments used in this study were questionnaires, interview form and issue for focus group discussion. The samples of quantitative study were 388 administrators and teachers under the office of the secondary educational service area selected by the multistage sampling. Quantitative data analysis was to validate the structural equation model with the empirical data whereas qualitative data was analyzed by content analysis and analytic induction. Result indicated that 1) the overall problems to organize the learner development activities were (1) learner development activities, (2) assessment of learner development activities, and (3) the prototype model of learner development activity arrangement according to the new normal, respectively. 2) A developed model consisted of four components which were (1) the learner development activities, (2) Self-training with Tri-sikkha (The Threefold Training), (3) the prototype of learner development activity arrangement according to the new normal, and (4) the assessment of the learner development activity. 3) The developed model was fit with the empirical data based on the statistical values, chi-square= 73.13, df = 55, p=.052, RMSEA = .029. From the casual relationship model, it was consistent with the actual situation of learner development activity rearrangement according to the Buddhist principles for students will result to a happy coexistence that was necessary to have the components of training content according to the threefold training principles consisted of practicing oneself. It was used as an important part in determining the scope of the learning content or content in designing the learning process for students to practice through practical activities that links to the learner development activity.

Index Terms— Model of Learner Development, Activity Arrangement, Buddhadhamma

I. INTRODUCTION

At present, Thai society has changed over time. Which is the age of information with innovation and technology Modern science that emphasizes the quality of human beings in society. In terms of material and values, this change causes many problems in life, such as health problems, economic problems. Unemployment problem Problems building the family status of the family cannot be complete. Problem of inequality and the degradation of the moral, ethical, and cultural issues mentioned above is a problem that results in psychological problems and affect further social problems which will find that people in the nation are facing now because of the psychological development that was not developed in time material prosperity and values from this change. Therefore, leading to more serious problems, most worrisome is the psychological problem is a fundamental problem of many other problems because the mind is the most important component that makes people perform various deeds, both good and bad karma Buddhist principles gave thought and reminders about life problems that is because of his own karma or his actions.

Developing people to have potential and quality plus the need to have morality and ethics that exploit knowledge in order to be developed for the better must give him the

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role of education in society let him show his full potential and give him the opportunity to be assertive, be yourself, respect the decision, listen to comments and suggestions to develop for further development. It also gave him the opportunity to perform on stage to the fullest in education. Because everyone can perform on stage to their full potential and quality, it is imperative that quality education be undertaken in order to maximize the potential of that person's potential and develop. It makes people know, think, analyze, synthesize and dare to face the problems that lie ahead, creativity, learn to learn by yourself and from those around you, able to adapt to changes that occur rapidly, having principles, knowing self-reliance and able to live in a happy society[1]. Current situation point out concerns of imbalanced development aimed at creating rapid economic prosperity make individuals and society including structures and administrative mechanisms and management that cannot be adapted in time. There is an imbalance between physical development and mental development causing stress, anxiety, and failing to adjust. There is an imbalance between physical development and mental development causing many problems especially to children and youth in school age such as mental health problems causing stress, anxiety, and failing to adjust lack of self-worth, more suicide problem of sexual harassment, various forms of violence or abuse, drug problems, failure to achieve academic and professional success. In particular, the form of educational activities for students' development which is an important foundation for the development of the future youth of the nation. The foundation of national development must begin with the development of the quality of the people in Thailand.

Learners development activities aimed at students to develop themselves according to their potential. All-round development for a complete human being, physically, intellectually, emotionally and socially to have the ability and foster a person with virtue, ethics, discipline, and take responsibility cultivate the values and subconsciousness of social contribution able to handle themselves and accept open-minded thinking positively in living happily with others. There are 3 types of student development activities: guidance activities, student activities and activities for society and the public benefit. Learner development activities are structured activities with a variety of formats to achieve a defined objective. It enables teachers and research authors to organize a variety of activities [2].

From the current condition found organizing student development activities in educational institutions, most of the activity teachers lack knowledge and understanding in organizing activities and skills in organizing activities which results in students not meeting the interests or needs of learners. It also instills desirable qualities in students according to their intended objectives. Therefore, the researcher is interested in creating a model for student

development activities according to the Buddhist principles for that student. It must be full and full of physical and mental, social, emotional and intellectual potential in today's society. It is important to apply the Buddhist principles of Buddhism to be applied in the formulation of learner development activities because in today's society. There are many problems how much depends on the process of applying the principles of Buddhism to solve problems in that organization. Whether it is the Dittatha Thammikattha, the 4 main benefits, and the threefold to present and develop a format for organizing activities by applying Buddhist principles and integrating them in solving problems and improving the quality of life of the learners and leading to the ultimate goal of organizing learner development activities, which is a form of activity development for students. It is a perfect human being, good, intelligent, capable, happy and indispensable, and must have virtue. It is an ethical approach to model makers to further develop student activities in the 21st century [3].

II. RESEARCH OBJECTIVES

The purposes of this research were 1) to study the condition of learner development activity arrangement for students in schools under the secondary educational service area office, 2) to develop a model of learner development activity arrangement according to the Buddhist principles for students, and 3) to propose a developed model of learner development activity arrangement according to the Buddhist principles for students.

III. RESEARCH METHOD

Mixed methods research was used for research design. Data were collected by using documentary study, in-depth interview with ten school administrators and focus group discussion with nine experts. The research instruments used in this study were questionnaires, interview form and issue for focus group discussion. The samples of quantitative study were 388 administrators and teachers under the office of the secondary educational service area selected by the multistage sampling. Quantitative data analysis was to validate the structural equation model with the empirical data whereas qualitative data was analyzed by content analysis and analytic induction.

Step 1 Study the condition of organizing student development activities for students under the Office of the Secondary Educational Service Area, there are 3 steps: 1) study from documents, study conditions from documents related to the format, meaning, types, guidelines for organizing learner development activities, concept of learning activities, Buddhist Dhamma Trisikha 3, and study the information of the school. Source: from books, textbooks, articles, related research, website. Results: The state of student development activities for students. 2) Study from distribution of questionnaires about the condition of

student development activities for students under the Office of the Secondary Educational Service Area. The sample consisted of 400 teachers. Data analysis: percentage, frequency, mean. 3) Study of the interview about the conditions of student development activities for students under the Office of the Secondary Educational Service Area from experts of 5 people using Snow Ball technique and select a specific set criteria for selection.

Step 2: Develop a model for organizing activities for learners according to Buddhist principles for students under the Office of the Secondary Educational Service Area, there are 3 steps as follows: 1) Drafting a model for student development activities based on Buddhist principles for students under the Office of the Secondary Educational Service Area, 2) Develop a model for organizing activities for learners according to Buddhist principles for students under the Office of the Secondary Educational Service Area by discussion group of resources: experts / academics / school administrators by selecting a specific type of 10 people. 3) Examine the pattern of student development activities according to Buddhist principles for students under the Office of the Secondary Educational Service Area by distributing questionnaires, data source: a sample group of 388 teachers randomly sampled.

Step 3 presents the form of organizing activities for learners according to Buddhist principles for students under the Office of the Secondary Educational Service Area by revising, revising and presenting as follows: Revise, improve, and present the form of student development activities according to Buddhist principles for students. Under the Office of the Secondary Educational Service Area, Tool: Study Document Outcome: a causal relationship model, management of Buddhist learner development activities for students under the Office of the Secondary Educational Service Area with empirical data.

IV. RESEARCH FINDINGS

1) Opinions about the condition of organizing student development activities for students under the Office of the Secondary Educational Service Area. The results of the research found that the problem of learner development activities for students under the Office of the Secondary Educational Service Area. Overall, it was at the high level with the mean (4.18) and when considered individually in the teacher side with the highest average in the high level, in descending order, the student development activities (4.19), the assessment, Organized learner development activities (4.17) and the areas with the lowest average at the high level were the prototype of the student development activities according to the new path (4.17).

Table 1 Shows the results of the analysis of mean values. and standard deviation comments on the condition of organizing student development activities for students Under the Office of the Secondary Educational Service Area

Components of organizing activities for learner development		State of Problem		
		$\bar{x}$	S.D.	Interpret results
1	Learners Development Activities	4.19	0.04	High
2	Model of student development activities	4.17	0.02	High
3	Assessment of student development activities	4.17	0.04	High
Total		4.18	0.01	High

The results of basic statistical analysis of the variables used in the model. There are 14 indicators used to measure 4 latent variables: 1) Learner Development Activity (STACT), 2) Assessment of Learner Development Activity (ASSESS), 3) Trisikha Practice (TRISIK), 4) Model. The aim of the new learner development activities (NORMA) (HAPLIVE) was to study the distribution and distribution characteristics of each observable variable. The statistics used were mean, standard deviation (SD), minimum score (Min), maximum score (Max), dispersion coefficient (CV), skewness (Sk), and Kurtosis (Ku) results were analyzed, each of the variables were as follows.

When considering organizing learner development activities (STACT), it was found that overall, learner development activities Was at a high level (Mean= 4.19), which when considered on each side found that Guidance activities (Mean=4.23) followed by social and public interest activities (Mean=4.20) and student activities (Mean=4.14), respectively. When considering the distribution coefficient (CV) of the variables, it was found that the variables were distributed no different very common. The value was between 4.14 - 23%. When considering the skewness (Sk) of the variable, it was found that all the variables were distributed in a left skewed manner. (Negative skewness value) indicates that the data of every variable is higher than the mean. When looking at the kurtosis (Ku), it was found that all the variables had a higher than normal distribution curve. (value greater than 0) indicates that all variables have little distribution of information.

When considering the components of the assessment of student development activities (ASSESS), it was found that, overall, the fundamentals of reflection were at a high level (Mean=4.17). The recommendations were the highest average (Mean=4.17), followed by the criteria of judging (Mean=4.17), the assessment guidelines (Mean=4.15) and

the corrective measures for students who did not meet the criteria (Mean=4.14), respectively. Considering the distribution coefficient (CV) of the variables, it was found that the variables did not differ greatly. The value was between 4.14% - 4.18%. When considering the skewness (Sk) of the variable, it was found that all the variables were distributed in a left skewed manner (Negative skewness value) indicates that the data of every variable is higher than the mean. When looking at the kurtosis (Ku), it was found that all the variables had a higher than normal distribution curve (value greater than 0) indicates that all variables have little distribution of information.

When considering the training according to the Trisikha principle (TRISIK), it was found that the overall training according to the Trisikha principle was at a high level (Mean=4.13). In terms of mental training for concentration, the highest average (Mean=4.14) followed by rational thinking (Mean=4.13) and practice according to the precepts (Mean=4.12), respectively. The variables were found to have a very different distribution. The value was between 4.12% - 4.14%. When considering the skewness (Sk) of the variable, it was found that all the variables were distributed in a left skewed manner. (Negative skewness value) indicates that the data of every variable is higher than the mean. When looking at the kurtosis (Ku), it was found that all the variables had a higher than normal distribution curve. (value greater than 0) indicates that all variables have little distribution of information.

When considering the model of activities for learner development along the new path (NORMA), it was found that the overall level was at a high level (Mean= 4.16). There was the highest average (Mean= 4.18), followed by training in providing services that benefit oneself and the public (Mean= 4.18), cultivating a consciousness for social benefit (Mean= 4.17) and promoting the knowledge group. Learned all 8 groups (Mean=4.12), respectively. When considering the distribution coefficient (CV) of the variables, it was found that the variables did not differ greatly. The value was between 4.12% - 4.18% When considering the skewness (Sk) of the variable, it was found that all the variables were distributed in a left skewed manner (Negative skewness value) indicates that the data of every variable is higher than the mean. When looking at the kurtosis (Ku), it was found that all the variables had a higher than normal distribution curve. (value greater than 0) indicates that all variables have little distribution of information.

The results of the analysis of consistency with empirical data of the model, model of student development activities based on Buddhist principles for students Under the Office of the Secondary Educational Service Area.

Table 1 Results of the analysis of consistency with empirical data of the model (in Thai)

ตัวแปรผล	TRISIK			NORMAL		
ตัวแปรเหตุ	TE	IE	DE	TE	IE	DE
STACT	.68** (.09)	-	.69** (.09)	.44** (.07)	32** (.07)	12** (.08)
ASSESS	.26** (.09)	-	.26** (.09)	.56** (.07)	.12** (.04)	.43** (.06)
TRISIK	-	-	-	.46** (.07)	-	.46** (.07)
ค่าสถิติ	ไค-สแควร์ = 73.13 df = 55 p = .052 GFI = .97, AGFI = .95 RMR = .011					
ตัวแปร	STACT1	STACT2	STACT3	ASSESS1	ASSESS2	ASSESS3
ความเที่ยง	.695	.759	.873	.785	.770	.779
ตัวแปร	ASSESS4	TRISIK1	TRISIK2	TRISIK3	NORMAL1	NORMAL2
ความเที่ยง	.780	.870	.842	.773	.774	.802
ตัวแปร	NORMAL3	NORMAL4				
ความเที่ยง	.812	861				
สมการโครงสร้างตัวแปร	TRISIK	NORMAL				
R SQUARE	.845	.954				
เมทริกซ์สหสัมพันธ์ระหว่างตัวแปรแฝง						
ตัวแปรแฝง	TRISIK	NORMAL	STACT	ASSESS		
TRISIK	1.000					
NORMAL	.952	1.000				
STACT	.912	.933	1.000			
ASSESS	.868	.945	.894	1.00		

หมายเหตุ: ตัวเลขในวงเล็บคือค่าความคลาดเคลื่อนมาตรฐาน, **p < .01

TE = ผลรวมอิทธิพล, IE = อิทธิพลทางอ้อม, DE = อิทธิพลทางตรง

In the data analysis of this model, there were four latent variables: Learner Development Activity Organization (STACT), Assessment of Learner Development Activity (ASSESS), Trisikkha Training (TRISIK) and Model of Learner Development Activity. New pathway (NORMA) by observable variables used in the analysis of all 14 variables.

Testing for the consistency of a model of activities for student development according to Buddhist principles for students Under the Office of the Secondary Educational Service Area, the first analysis of the model revealed that the model was inconsistent with the empirical data. Considering that the chi-square value is 204.63 at the degrees of freedom of 71 and the probability (p) is .000, the square root of the mean square error of the estimate (RMSEA) has the value is equal to .070.

From the aforementioned analysis results the researcher then adjusted the model by allowing the errors to be correlated. This is a relaxation of the preliminary

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agreement in the traditional analytical statistics stipulating that the error terms must not be correlated. It is a preliminary agreement in statistics analysis with SEM, which requires that the error term be used in data analysis, and the term of the error is related according to the reality of natural phenomena. Model modification results, the more accurate size, influence and correlation between variables were obtained in the model [4] (Modification indices) and modifications to the model of 16 paths by adjusting 1) Theta-Delta (TD), 2) Theta-Epsilon (TE) and the results of the modifications. This resulted in a model, pattern of student development activities based on Buddhist principles for students consistent with empirical data with detailed analysis results.

When considering the results of the analysis of the model of student development activities based on Buddhist principles for students, it was found that the model was consistent with the empirical data. Consider the statistic used to verify the consistency between the model and the empirical data, the chi-square value is 73.13, the degree of freedom is 55, the probability (p) is .052, that is, the chi-square value that differs significantly from zero, indicating that the main hypothesis that Model, model of activities for learner development according to Buddhist principles for students Developed in harmony with empirical data corresponding to the analysis results, the harmonization index (GFI) is equal to .97, the modified harmony index (AGFI) is equal to .95, which is closer to 1 and the root index of the mean square. Its residual (RMR) is equal to .01, which approaches zero, and the remainder in the form of the Largest Standardized Residuals score was 2.733, supporting that the research model was consistent with empirical data.

When looking at the precision of the observed variables, it was found that the observed variables had the valuation value between .695 and .873, with the variable with the highest precision being practicing rational intelligence (STACT3) and following precepts (TRISK1). Equal to equality, 870 followed by training mind to concentrate (TRISK2) training in various services that benefit oneself and the public (NORMA4) cultivate and consciousness to benefit society, (NORMA3) and the needs of learners (NORMA2) have a precision value of .802 and the variable with the lowest precision is the guidance activity (STACT1) had a precision value of .695 overall, the precision of most observable variables was high.

When considering the predictive coefficient (R-SQUARE) of the internal variable structure equation, it was found that the component of the learner development activity (STACT) had a predictive coefficient of .845, indicating that the variables within the model were learner development activity (STACT), with the Assessment of Learner Development Activities (ASSESS), the variance of the components of the Trisikkha Training was 84.5 percent,

show that the variables within the model are learner development activities (STACT), assessment of learner development activities (ASSESS) and self-training according to the principles of TRISIK .96.5.

When considering the correlation matrix between the latent variables, it was found that the range, the correlation coefficient between the latent variables, ranged from .868 to .952, with all the variables having the same direction. (Positive correlation). The variable with the most correlation coefficient was the learner development activity (STACT) and the new model of learner development activity (MORMAL) model with a correlation coefficient equal to .952. A high level of relationship indicates that as learner development activities increase, the model of learner development activities along the new path has increased as well [5].

When considering the direct and indirect influences between the variables in the model, it was found that the relationship between the variables of the learner development activity (STACT) and the new learner development activity model (MORMAL) model (correlation size = .933). Separate was direct influence .12 and indirect influence .32 was combined influence .44 indirect influence and total influence on the model of the new learner development activities (MORMAL) were not statistically significant, but the size of the direct influence influenced the prototype of the learner development activities along the new path not statistically significant.

When considering the direct and indirect influences between the variables in the model, it was found that the relationship between the variant of the Learner Development Activity Assessment (ASSESS) and the new model of Learner Development Activities (MORMAL) model Indirect influence .43 and indirect influence .12 are combined influences .56 indirect influence and total influence on the model of organizing activities for learner development along the new path (MORMAL) are not statistically significant. But the size of the direct influence influenced the prototype of the learner development activities along the new path All of them have statistical significance [6].

It is noteworthy that the size of the indirect influence between the Learner Development Activity Variable (STACT) and the New Way Learner Development Activity Model (MORMAL) through the Trisikka method was higher than the direct influence. It means that the TRISIK variable is the transmission variable of the causal relationship model, the organization of the student development activities according to Buddhist principles for students under the Secondary Educational Service Area Office and details of the analysis results are shown in the table.

Presenting a model for student development activities according to Buddhist principles under the Office of the Secondary Educational Service Area.

The researcher presented the results of the research in the form of activities for learner development according to Buddhist principles for students under the Office of the Secondary Educational Service Area. There are 4 components of the pattern as follows: 1) the learner development activities, 2) the self-training according to the Trisikkha principle, 3) the prototype of the learner development activities according to the new path, and 4) the assessment of learner development activities. The details are as follows:

Chi-Square=73.13, df=55, P-value=0.05152, RMSEA=0.029
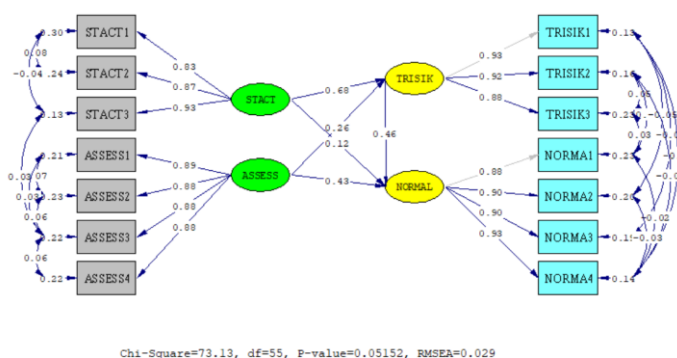
Fig.1 A Model of Learner Development Activity Arrangement according to Buddhadhamma for Students

V. DISCUSSIONS

From general information of teachers in educational institutions Under the Office of the Secondary Educational Service Area, the respondents found that it was male, the age between 21-30 years old, Bachelor's degree. There are opinions that are consistent overall that the state of problems in organizing learner development activities for students Under the Office of the Secondary Educational Service Area.

From research Domestic research related to the organization of student development activities for students Under the Office of the Secondary Educational Service Area Found research that can be directly compared, but there is a similar research, namely Krongkaew Chanket (2005) [7] research study on conditions and problems in organizing student development activities in public secondary schools. Pathumthani Province. The results of the research were as follows: 1) The preparation of an educational institution curriculum concerning learner development activities should involve the school committee, parents and community participation and there is a constant supervision, monitoring and evaluation of learner development activities, 2) Establishing clear regulations on learner development activities, set goals for organizing

activities for learners to gain a variety of experiences, 3) To implement activities for learner development, teachers should be trained to have knowledge and abilities in organizing learner development activities to allow learners to be independent in decision to create a project, work piece according to potential develop a program of activities for developing learners in various fields in accordance with the needs and interests of the learners, suitable for educational institutions and organize activities that enhance both personality and physical aspects. 4) Providing tools for evaluating the results of learner, development activities. It was also in line with Jatupon Thawahiran[8], studying the condition and problems of the guidance administration using the DEMING circuit (PDCA). The improvement and development audit plan covers all five guidance services, which show that the guidance management work in educational institutions is good and quite complete. This may be due to Basic Education Curriculum, B.E. 2544 (2001) designated line work as a mission that educational institutions must undertake to promote, supervise, and help learners, to be able to learn and develop themselves naturally and to their full potential. School administrators must have attitudes, knowledge and abilities. Have good skills, able to manage advice. As a result, the guidance coordinator teachers perceive their roles and duties and cooperate in fulfilling their roles and responsibilities and cooperate in the effective performance of roles and responsibilities and in accordance with Thanyaniamtang, [9] the study of operating problems, needs of student guidance work and guidelines for the development of the Ban Pong School guidance work under the Office of the Educational Service Area.

1. The operating conditions of the five guidance services still lack clarity in the development and guidance plans. Personnel in charge of the guidance work still lack the development of effective guidance. Data collection classroom teachers prepared in the form of cumulative records. The information is not yet current. Preparation of an information system to disseminate information Made in the form of boards, information signs, brochures, journals, sound lines acquisition of information from magazines, newspapers, radio and television. Counseling services are the duties of the class teacher. There is no specific location and time for consultation. Personal placement services are available to provide assistance in scholarships, lunch, extra-curricular activities such as remedial teaching Various assembly activities, performance monitoring, guidance. There is no monitoring and evaluation tool at the end of the school year. Summarize and report results according to project plans only. [10]

2. Demand for all five guidance services, it was found that the students wanted the homeroom teacher to collect all aspects of information thoroughly and sort out the need for assistance. Information services Students want the school to

distribute the information in a form of voice by line. Organize a video to provide knowledge in various fields such as career, education, knowledge around and take it to the learning resources. Counseling requires that the homeroom teachers have good and friendly relations with the students want to provide assistance in adaptation, poverty, family problems provide a guidance teacher in the guidance room to facilitate counseling. Consultation for a time and after students who have problems come to use the counseling service have the class teacher provide guidance on how far students are receiving academic assistance and personal development.

3. Guidance for the development of guidance work to be effective, found that there are 7 steps, consisting of study of operating conditions, providing five guidance services, determining prospective work conditions in the future establishing guidelines for guidance activities aimed at success guidance analysis for success. The recruitment of responsible persons to prepare the development plan, guidance work, annual action plan monitoring and evaluation of guidance reporting results for further publicity.

The research results show that operational conditions, organizing activities for student development basic education level, operations in enhancing student life skills. The school is the main unit of work in life skills. The content of life skills is also included or integrated into the learning materials, eight topics, and in learner development activities, which are guidance activities. Student activities and service activities policy-related departments still focus on academic work stakeholders therefore have to work together in preparing children and youth to have life skills, to be self-reliant and face problems in order to live happily with society [11].

CONCLUSION

Presenting a model of learner development activity arrangement according to the Buddhist principles for students, the researcher examined the model by distributing questionnaires, revising and presenting the model from examining the patterns of student development activities according to the Buddhist principles for students under the Office of the Secondary Educational Service Area. It was found that the format of student development activities according to the Buddhist principles for students under the Office of the Secondary Educational Service Area. The overall picture is at a high level. In the activities of developing learners at the highest level showed that the format of student development activities according to Buddhist principles for students under the Office of the Secondary Educational Service Area is consistent with the organization of learner development activities.

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Roles of Buddhist Monks in Moral Development following Sufficiency Economy Philosophy

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Abstract— The purpose of this article was to propose a model of moral and ethical development according to the philosophy of sufficiency economy. Documentary study was used by studying the role of Buddhist monks and analyzing the consistency of morality, ethics, and philosophy of sufficiency economy consisted of modesty, rationality, and immunity that based on the conditions of knowledge and morality. Results indicated that the guidelines for moral development began with the development of education in order to provide people with knowledge with various abilities, and also apply the aforementioned knowledge to occupations building well-being for yourself and your family. For moral and ethical development, it is very important aspect for social development. Considering with the current situation in Thai society, it can be seen that the chaos of Thai society today is mainly due to the lack of moral and ethical lifestyle. Therefore, moral and ethical development must know how to improve oneself to be people with sufficient knowledge, and be a person who spends sufficiently on education, a person with good physical health and mental health, and be a learner who know how to solve problems, and know how to think reasonably. There are five aspects in a model of moral and ethical development consisted of education, Dhamma propagation, social welfare, inherit culture, promote and preserve environment. There are two important principles for the maximum benefit which are virtues for a good household life, and virtues conducive to growth in wisdom.

Index Terms— ***Buddhist Monks, Moral Development, Sufficiency Economy Philosophy***

I. INTRODUCTION

At present, the monks play a role in human resource development in the community by integrating the principles of Dhamma into their application. It is about conducting economic activities by applying the principles of the way of life to live sufficiently according to the philosophy of sufficiency economy, which consists of modesty, rationality, and immunity to be able to produce or consume well, both in behavior morality and wisdom bring the community out of poverty, debt problems, and sufficiency, do not persecute oneself and others more importantly, it can take the mental development to the next level from the implementation of adequate economic activities, as help sharing unity and good relationship with people in the community. According to Buddhist principles that emphasize the production without self-persecution and others (honesty), consumption that focuses on moderation in order to keep the subject matter (nutrition), income distribution focused on helping the less fortunate (alms), the doctrine of the Lord Buddha,

transmitted by the monks, emphasizes the development of the mind as already the original capital. It affects mental health and is an important variable for physical and mental health. The main role that monks have to perform in order to achieve their highest goals, another role is to help society and community. Since the monks have a way of life that has to rely on living with the householder by offering alms to sustain their lives, therefore, having relationship with the householder in that community. Monks have a duty to help society and community, so that people in society shun the people able to enhance the quality of physical, mental and intellectual behavior.

II. THE ROLE OF MONKS IN MORAL AND ETHICAL DEVLOPMENT

The monks play a role for society by using social problems as a guide, activities that do partly respond to problems and have to look at the problem, be separated and narrowed. Some monks provide community-based social services, although the local problems are small but powerful

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and do not separate the problems that are related to each other, and more importantly, looking at the problems from a perspective independent of the capitalism, materialism and consumerism of the monks by tradition, the monks do not just teach theology. If there is still a secular role, such as teaching a profession to dig a pond, build a bridge and be a mediator to settle conflicts in the village, etc. The temple is therefore not a place to teach morals and rituals. The role of the monks in community development through the creation of public interests which is to create a bond and support the villagers with necessary things for the life of the community, for example, helping to build schools, build roads, community hall, more fair by cultivating morality. Morals, ethics and values are good for the people from one generation to another for a long time and also a religious succession. Monks have always been helping Thai society, especially in the countryside. By acting to help society and greatly lighten the burden of service of the society, it helps to strengthen the mind and character of the society, provide services according to the needs of the people relating to activities and religious rituals and influencing, motivating, or suggesting social activities and causing changes roles of moral and ethical development in village development. As a result, the village's problems began to resolve, such as higher income, reduced drugs, unity, additional occupation, group work, soil, water, forest, community and animals as a food source for villagers, families reduce the schism, good physical health arises and generosity towards one another, having a welfare fund reduce the cost of treatment and there are more personnel working as follows:

1. Role as the founder of the community activity group. and network organization groups.

2. Role as a consultant for enhancing and extending activities that are strong and sustainable for villagers in the community and network organizations.

3. Role as educator understanding of service management, community activities, and networking organizations

4. Role as a coordinator harmonize your thoughts coordinate for public and private agencies to support and strengthen the field of knowledge, materials, equipment and budgets to strengthen the organization in the community.

5. Role as community activity group facilitator and the network organization group has entered the place providing community information materials, equipment and services.

6. Role as a supporter and promoter to support group activities in the community and network organizations that carry out local activities as well as initial investment budgets facilitate the facility support in the provision of resources and other factors contributing to operations [1].

III. PHILOSOPHY OF SUFFICIENCY ECONOMY

Developing the country towards modernization has caused tremendous changes to Thai society in all aspects be it economic, political, cultural, social and environmental aspects. In addition, the process of change is so complex that it is difficult to explain in cause and effect because all changes are interconnected factors. Positive developments include an increase in the rate of economic growth. Material prosperity, various utilities, modern communication system, expanding the quantity and distribution of education more thoroughly but most of these positive effects spread to rural people, or the less disadvantaged in society, but the process of social change has followed negative consequences [2].

Sufficiency in life which is a basic condition that enables Thai people to be self-reliant and can lead a life with dignity under the power and freedom in determination own destiny. The ability to control and manage in order for oneself to be responsive to various needs, including the ability to manage problems on their own, all of which are considered fundamental potentials that Thai people and Thai society have previously had, must be impacted the economic crisis from the bubble problem and the vulnerability of the countryside as well as other problems that arise, all of which are proof and confirmation of this phenomenon as well.

Sufficiency economy is a philosophy pointing to the way of life and behavior of people at all levels from the family level, community level, to the state level in both the development and administration of the country to proceed in the middle way especially economic development to keep pace with the globalized world, sufficiency means modesty, rationality, and the need to have a reasonably healthy immune system against any impact caused by changes both inside and outside, this requires knowledge, prudence and great care in bringing various academic used in planning and execution of every step and at the same time must strengthen the mental foundation of the people of the nation especially government officials, theorists and businessmen at all levels to have a sense of virtue honesty and the right knowledge, living with patience, perseverance, wisdom and prudence, providing balance and readiness to support rapid and extensive changes both objects, society, environment and culture from the outside world as well.

The meaning of sufficiency economy consists of the following features [3]:

1. Modesty refers to the fit that is neither too small nor too much without hurting themselves and others, such as production and consumption at a modest level.

2. Rationality means a decision about the level of sufficiency must be logically based on relevant factors as

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well as taking into account the expected consequences of such actions.

3. Immunity means preparing to be ready to be affected and to change various areas to happen taking into account the possibility of various situations expected to happen in the future with the conditions of making decisions and performing various activities to be in the sufficiency level for 2 things as follows:

1. Knowledge conditions consisted of knowledge about various academic subjects related all around the prudence to put that knowledge into account for planning and caution in practice.

2. Moral conditions that must be strengthened and have an awareness of morality, honesty, patience, perseverance, and use of wisdom in life.

Sufficiency economy focus on manufacturers, consumers try to start production, consumed under the scope income limitation or existing resources, which is the key to reducing dependence increase the ability to control production by yourself and reduce the risk of not being able to control the market system effectively. Sufficiency economy does not mean being unreasonable, but may be luxurious from time to time, conventionally but most of the country often overspend beyond the position that can be obtained can lead to the goal of establishing economic stability, for example, basically Thailand is an agricultural country, the national economy should focus on the agricultural economy. Emphasis on food security creates stability as an economic system to a certain extent. It is an economic system that reduces risks. Economic instability in the long run can be applied at all levels, all branches, all sectors of the economy. It doesn't have to be limited to only agriculture or rural sectors, even the financial sector, real estate sector and international investment trade with a similar principle: emphasize discrimination in moderation, rationale, and immunity to oneself and society.

IV. ROLE OF MONK IN MORAL DEVELOPMENT AND ETHICS ACCORDING TO SUFFICIENCY ECONOMY PHILOSOPHY

Monks are considered the spiritual center of Buddhists. Buddhist life is tied to monks in one way or another. Therefore, the relationship between Buddhists in society and monks therefore cannot be separated. This is reason how they have to rely on each other all the time. The monks have roles in various fields to support the community as follows: [4]

A. The role of monks in education

Since the past, the temple and the palace have always cooperated to educate people until education new plans in the reign of King Rama V, temples and clergy continue to cooperate in the administration of the nation's education

especially at the elementary and primary levels later in the reign of King Rama VI, the study of measurement systems with the study of the new system to be completely separated direct educational duties of the monks, therefore, limited to temples and people in a narrow circle only from the importance of temples and Buddhism in the past evoke tradition is important that Buddhism is involved in education until the present day [5].

1. Temple traditions as a center for community education and the monks are the teachers who train and teach the townspeople and townspeople today may not be able to see it, but for the villagers in the remote countryside, still enough to see although not as central as before it is enough as a channel or a last resort.

2. Ordination tradition which means that ordination and study after the ordination, they must study or become a monk to study.

At present, the role of monks in education can be categorized as follows:

1. Early Child Training Center
2. Sunday Buddhism School
3. Dharma Education
4. Teachers teach morality in schools or Phra Dhammavidyakorn Education of the Buddha
6. Education management in Buddhist universities.

B. The role of the monks in the teaching of Dharma

In the past, the mission of monks was limited to temples and villagers according to traditions and occasions, such as preaching and teaching villagers on Buddhist monks or religious days, preaching in merit-making, ceremonies, or religious ceremonies such as making merit, house, funeral, etc. At present, communication is more convenient and faster the monks are able to carry out a wide variety of Buddhism and reach more people in different groups. The role of the monks in the dissemination of Dharma can be divided into 3 main things which are:

1. Phra Dhammacarik, Thai monks who sacrificed their time and voluntarily traveled to perform missionary work to hill tribe people in different provinces to respect Buddhism. Present himself as a Buddhist and send many children to ordinate and have the opportunity to study both the religious and ordinary education and traveled to spread Buddhism in the original hometown.

2. Missionary monks or Phra Dhammaduta is a monk, novices with sufficient knowledge of Buddhism can carry out the mission. Then sacrificed to meet with people in different places to find a way to persuade. People are interested in the values of morality and Buddhism.

3. General propagation of Buddhism consisted of preaching or lecturing on various occasions such as on Buddha's day or as received in various places on important days, broadcasting through various media such as radio, television, print, and other refers to the propagation that is

coupled with other areas of development such as development or material aid, then convinced him to turn to Dhamma.

C. Roles of monks in social work

Social work duties of the monks arise from 3 aspects:

1. The life of a monk has to be related to the householder in 4 factors.

2. Social conditions and events call for change for the better.

3. Morality, compassion, and benevolence of monks who want to help others from suffering.

The role of monks in mental development, Buddhist principles clearly indicate that all Dharma has a heart as the head. Most noble accomplished by heart therefore, a well trained mind must be developed and there will be an outward development as well. The development of the mind according to the viewpoint of Buddhism is called prayer or meditation is to cause real enlightenment.

D. The role of monks in cultural inheritance

Culture is a way of life created by human beings for the benefit of living and passing on from ancestors to future generations. Culture is divided into 4 types as follows:

1. Art and culture which are archaeological sites, antiques and objects of art such as castle, royal palace, fortification temple, wall, and appearance that is not clearly shaped, such as a moat, an ancient road, and a covered mound, chedi, church, vihara, etc.

2. Art and Culture in painting, most of them are present in the temple.

3. Art and culture in the category of local arts and handicrafts.

4. Abstract art and culture such as ideas in attitudes, ideologies, traditions, beliefs and traditions.

The role of monks in promoting and preserving the environment with principles in Buddhism about nature, laws of nature, compliance with nature's regulations and the results obtained by following the laws of nature man is only part of nature. Therefore, there are many principles that show the need to conserve nature. In particular, the natural environment that humanity relies on for life also includes religious leadership roles that influence the villagers in rural and respectful urban communities. Accepting guidance or advice not only on matters related to religion, but also occupies an area in other dimensions as well, such as village development religious leaders are often informal leaders of the villagers. It has a high level of thought and spiritual influence on the villagers, so the monks should be a good role model. In morality to cultivate faith in the local people. They should develop themselves to

be knowledgeable both in secular and moral ways in order to keep up with the changes of society which will affect the potential for mental development. The propagation of religious dhamma to Buddhists being a direct and indirect provider of teachings and religious principles, that is, being a trainee of Buddhists, indirectly is self-discipline which will build faith in the common people, and the provision of potential development training in spiritual development and religious principles for teachers and trainers to train youth in teaching youth morally, such as being a lecturer in educational institutions or organize projects and activities to bring Buddhists and youth to participate in religious training, which may be done by a group of people with a temple as the main theme of monks and media groups [6].

E. Principles and methods of moral and ethical development according to the philosophy of sufficiency economy.

Buddhism sees all human beings as "animal wonders" who have the potential to develop morally. Higher ethics respectively until the ultimate goal of life can be achieved the cultivating approach that Buddhism accepts both the influence of the environment and the use of wisdom to consider reason that is the only important element that makes learning and changing behavior of a person. These two elements must be complementary and coordinated well. Moral and ethical development goes well, and the two components are [7] :

1. Paratoghasa, outside environment refers to a good general social environment that contributes to the instillation of ethics in this place, focusing on the Kalyanamitra, that is, the person who gives good advice, such as parents, teachers, and the one who knows all means children with good Paratoghasa are more ethically advanced than children who live in harsh environments.

2. Yonisomanasikara, knowing how to use wisdom to rationalize, use thinking in the right way, known to think, that is, to distinguish and search for the root. According to the principle of the relationship of various factors, it is easy to understand, that is, think as a solution. In practice, creating moral ethics will depend partly on the environment, and create internal awareness, especially the thinking of another, part of the child. Teachers will help as Kalyanamitra, guiding them to use their thoughts in the correct way, thinking and reason, if there is no Kalyanamitra, Yonitsomanasikara is often difficult.

Monks are expected to play a role in moral and ethical development in accordance with the Sufficiency Economy Philosophy through various social institutions, where such roles are expected to have similarity. This is reason how the word role refers to the behaviors expected for those in different statuses to perform and the expected role in moral and ethical development is the role of monks where

performing roles have limitations according to the principles of Buddhism. As a result, the roles that were expected were similar in the way that priests could perform properly which, according to the opinion of the monks, should play a role can be summarized as follows [8]:

1. Role in teaching morals, morals and ethics according to the sufficiency economy philosophy to build understanding of the concept and can be applied in both the temple sermons or being a teacher at an educational institution. This is a role that monks can perform through all forms of social institutions. In the form of a missionary whose missionary mission is a monk, novices with sufficient knowledge of Buddhism can proceed to disseminate. Then sacrificed to meet with the people in different places to be a way to persuade people to have an interest in moral values and Buddhism [9].

2. Role in leadership and role model in self-sufficiency life. Self-reliance is a role that monks can perform through all forms of social institutions, especially religious institutions which means self-possession according to the principle of discipline which can be a good role model for Buddhists. However, one desirable role of the monks is to be a good role model in morality to cultivate faith in the local people. This role is also in line with moral and ethical development by observing the model based on the Social Cognitive Theory. Most of the learning of people is through observation of the model which can be transmitted both thoughts and expressions at the same time.

3. Role in community collaboration educational institution government agencies to develop morals and ethics in instilling awareness among the people. Consciousness must be cultivated to have awareness (awareness), consciousness, collective action, network, co-ordination and cooperation.

4. Roles in organizing entertainment activities or recreational activities within the temple to promote moral and ethical youth, and role in arranging the landscape within the temple as a place to relax and appreciate nature. Since the Dhamma propagation can be coupled with other developments such as development or material aid, then convinced him to turn to Dhamma. In addition, the organized fair and entertainment activities persuade the youth to come to Paratoghasa or the external environment. This refers to a good general social environment that contributes to the instilling of ethics in this regard, focusing on the Kalyanamitra who gives good advice, are ready to make more ethical advances than children in harsh environments. Therefore, organizing a fair and entertainment activity is to instill the subject of morality to the youth whose youth are like pure whites. It is a soft wood that is easy to bend. Therefore, special attention should be given to the training and development of our youth as a child being a desirable youth, that is, a smart man with wisdom being a good person with virtue, happy in society.

Development of the role of the monks to be a lecturer in various knowledge. The principles are presented to the people, not necessarily just preaching must reach the public. There are very few monks that reach the people. If the monks are skilled and loving. There are various institutions promoting in all aspects. There is encouragement for the little ones to gain power for the masses. We have to create faith. We will gain cooperation and develop in a process and can integrate as required.

CONCLUSION

The role of the monks to develop morality and ethics according to the philosophy of sufficiency economy to be successful depends on the monks must have good faith first. That is, first of all, if we do not have faith to propose however villagers would not trust neither believe nor will cooperate. Therefore, the first thing to be successful is that the monks have to have good practice and good precepts to be able to lead for the success, namely the monks in the temple whether it is a leader, a leader of sub-district, a leader of district, and the leader of province, abbot of every temple, general monks and priests should have determination in teaching at the monk himself. If we stay, be a teacher and stayed for him to see what the characteristics of a monk, how to do and promote good morals and ethics like that. If the monks have shown good role of model, they can be followed, and they are considered the best teachers. Monks have to understand their roles first and it is also important to education as monks are a symbol of education. If monks understand their role first and develop their potential for moral development, it is an abstract matter that should be accomplished. You must know the potential of people who have to develop morally and to understand our role.

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Development of Buddhist Self-Defense Mechanism Model of School Administrators under Office of Secondary Educational Service Area

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Abstract—The purposes of this research article were1) to study the state of Buddhist self-defense mechanismof school administrators under office of Secondary Educational Service Area, 2) to develop a model of Buddhist self-defense mechanism of school administrators under Office of Secondary Educational Service Area, and 3) to propose a model of Buddhist self-defense mechanism of school administrators under Office of Secondary Educational Service Area. A multiphase mixed methods design was used for research design and was divided into 3 phases. Phase 1 and 2 were designed by using qualitative research and the key informants were 12 school administrators and educators, and the target group of 9 experts in focus group discussion. They were selected by purposive sampling. Phase 3 quantitative research was designed and 435 samples was selected by two-stage random sampling. Data were analyzed using descriptive statistics, and the research hypothesis was validated the causal model by LISREL program. Results showed that 1) the state of Buddhist self-defense mechanismof school administrators under office of Secondary Educational Service Area found that school administrators perform the ability of school management, being a leadership, being a good role of model both in self-practice and working, being an appropriate position. There were 3 main important components which consisted of (1) best performance of management related to good role of model in Buddhist self-defense mechanism, (2) communication language of management related to speech honesty in Buddhist self-defense mechanism, and (3) management method for ultimate goal related to public mind in Buddhist self-defense mechanism. 2) The developed model of Buddhist self-defense mechanism of school administrators under Office of Secondary Educational Service Area showed that components of important factors and was a causal relationship. Results towards to Buddhist self-defense mechanism of school administrators consisted of self-defense mechanism and urgent wisdom management. Results of model assessment showed that it was possibility, correctly, and appropriately model. 3) A causal relationship model of Buddhist self-defense mechanism of school administrators under Office of Secondary Educational Service Area was fit with empirical data. Analysis results were Chi-square = 21.25, df = 14, p = .095, GFI = .992, AGFI = .995, RMR = .011, accounting for the variations inurgent wisdom management was 84.80 percent and in Buddhist self-defense mechanism was 87.20 percent. Therefore, self-defense mechanism and urgent wisdom management can be encouraged to initiate Buddhist self-defense mechanism of school administrators.

Index Terms—Self-Defense Mechanism, School Administrators, Secondary Educational Service Area

I. INTRODUCTION

Education is to educate people and able to have the basic skills necessary to have a good character. They are ready to fight for themselves and for society are ready to pursue a career education helps people to flourish, both mentally, mentally, and physically, and can also affect society and the nation to prosper and advance as well as the civilization. In National Education Act, the revised edition of 1999 said that to develop Thai people to become a complete human being, physically, mentally, intellectually and socially, having morality, ethics and culture of living, able to live happily with others according to the educational law's aim. National B.E. 2542 (1999) and Amendment (No. 2), B.E. 2545, section 6 has an important principle in the provision of

education, that is, life-long education for the people, allowing society to participate in education management, with continuous development of knowledge and processes (section 8) encourage teachers to organize the atmosphere, environment, learning materials and facilitate learning (section 24) [1] in which the said education takes place in more than 38,629 schools in Thailand. The school is an agency that is responsible for educational management and performing various tasks in order to promote learning and teaching which is beneficial to the learners including organizing various activities that nurture and instill students to be good citizens of society have good cultural and social values under the leadership of the school administrators so, administrators play an important role in education

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administration and management. It possesses important attributes, both professional and personal, to pursue the achievement of the goals and objectives of the study. The modern school administrators will be the leaders of the change in the management paradigm. Therefore, the capacity of the current school administrators must be the leaders and adapt to keep up with the changes that will occur. Professionals, such as adapting to keep up with the technology age including adjustments when moving to schools since most administrators tend to transfer schools frequently. Thus, there must be an adjustment to the organizational culture, personnel, number of students, places, as well as adaptation to cope with various situations. It is the adjustment of body and mind to live in society. In the environment and in various situations happily from the context of the adaptation mentioned above which management has to face and cope properly in psychology, adaptation is a movement in which a person behaves. To meet the physical, mental and social needs, the body reacts in different ways, known as the Defense Mechanism [2], where the defense mechanism is strategies that humans use to mitigate the emotional states that arise by distorting, denying and avoiding situations. Once used, the person will feel more comfortable to be able to maintain a balance in the mind to some extent, but if used to everything until it becomes habitual, it can negatively affect personality. Because the defensive strategy itself is to fight and protect yourself from unacceptable reality situations. Therefore, if used a lot It may cause the person to have a personality that cannot accept the truth of what happened to him. [3] In Buddhism, there are many principles of Buddhism suitable for self-defense which can be used continuously without any negative effect on the user, such as the Four Noble Truths, Trisikkha, Ayatana VI, and SatipatthanaIV, etc., where the principles that are suitable to be integrated for self-defense are the practice of mindfulness by means of practicing mindfulness according to Buddhist principles is called the four mindfulness. Mindfulness is remembrance, remembering, not being unconcerned, controlling one's mind or holding one's mind with related things. Body with work mind on work caution, vigilance, duty, a state that is always ready to be aware of things, [4] Jung can be able to reduce the use of self-defense strategies or make it less.

From the background and importance of the problem, the researcher is interested in studying development of a Buddhist Mechanism Model of School Administrators under the office of the Secondary Educational Service Area about what types of strategies there are and how many executives do to guide self-improvement in the area of adaptation. The use of strategies will affect personality including the efficiency of the school administration as well.

II. RESEARCH OBJECTIVES

The purposes of this research article were1) to study the state of Buddhist self-defense mechanismof school administrators under office of Secondary Educational

Service Area, 2) to develop a model of Buddhist self-defense mechanism of school administrators under Office of Secondary Educational Service Area, and 3) to propose a model of Buddhist self-defense mechanism of school administrators under Office of Secondary Educational Service Area.

III. RESEARCH METHODS

A multiphase mixed methods design was used for research design and was divided into 3 phases [5], divided into 3 phases:

Phase 1: In-depth interview to study the Buddhist mechanics of the school administrators under the Office of the Secondary Educational Service Area.The target group is experts in school administration. The data were collected from purposive sampling of 12 key informants. The tool used for data collection was interview question guidelines. The issues involved include 1) self-defense strategies, 2) management with knowledge and knowledge, 3) Buddhist principles of the school administrators. In this phase 1 research, the qualitative research was analyzed by creating an inductive conclusions (analytic induction) in which the results of the analysis would answer the research objective of item 1.The results obtained from the research in Phase 1 were gotten the Buddhist mechanics of the school administrators under the office of the Secondary Educational Service Area.

Phase 2 Focus group discussion to develop a Buddhist mechanics model of school administrators under the Secondary Education Service Area Office. The target groups used in the discussion group are scholars of Buddhist education administration. Education management expert using purposive sampling of 9 experts, the focus group discussion tool consisted of two parts of the group discussion concept or issue as follows: Part 1: components of the development of the Buddhist Mechanism model of school administrators under the Secondary Education Service Area Office, section 2, issues used in examining the feasibility and feasibility of the development of a Buddhist mastering mechanics model of the school administrators under the Office of the Secondary Educational Service Area. The analysis of the data in phase 2 will be conducted in the same way as the phase 1, where the results of the analysis will satisfy the research objective of item 2. Buddhist teaching of the school administrators under the Office of the Secondary Educational Service Area.

Phase 3 Questionnaire to present the Buddhist mechanics model of the school administrators under the Office of the Secondary Educational Service Area in phase 3, using a quantitative method. The quantitative approach was obtained by using data from the second phase of the study to develop a causal relationship model showing the Buddhist mastery of the school administrators under the Secondary Education Service Area Office and to verify the validity of the developed causal relationship model, the sample size was determined using the formula of Hair and others, [6] a

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sample size of 15 people per 1 parameter was used; The sample consisted of 435 people. The instrument used for data collection was a questionnaire. The third phase consisted of data analysis: Analysis of reliability using Cronbach's alpha coefficient formula analyze structural straightness using affirmative element analysis Confirmatory Factor Analysis: (CFA),2) Preliminary data analysis, namely, preliminary statistical analysis of the variables related to the background of the sample using frequency and percentage. The observable variables were analyzed by using the computer package program. The statistics used were mean ($\bar{x}$), standard deviation (SD), distribution coefficient (CV), skewness, kurtosis, and the distribution characteristics of variables and a correlation analysis with computersoftware; analyzed SEM to investigate model straightness and influence size analysis to study variables in the causal relationship model. Buddhist mechanics model of school administrators under the Office of the Secondary Educational Service Area according to the research objective of item 3 and the results obtained from the research in phase 3, the Buddhist mechanics model of the school administrators was obtained under the Office of the Secondary Educational Service Area.

IV. RESULTS

1. The results of the synthesis of the Buddhist mechanics of the school administrators under the Office of the Secondary Educational Service Area in the context of educational institutes, administrators and scholars of Buddhist education administration were interviewed from the following 3 issues: 1) the self-defense mechanism, 2) the management with knowledge, and 3) in the Buddhist-based strategy of the school administrators, the research results were found that 1) Self-Defense Mechanism Executives act according to the policy set goals or objectives operational planning create a calendar of operations have a cooperative meeting management with Quality Cycle (PDCA) has a solution to problems by considering specific problems according to the situation finding the cause of the problem analyze the problem meeting and consultation for all parties find a solution on the issue of conflicts, the issue is mediated by perseverance and having a model in management that can be applied in their own administration. 2) In Management with intelligence, Executives have a good position play the role of leader or follower appropriately can be a model for others and reasonable always in mind not enslaved by emotions use the principles of cutting off defilement and provocation hold on to the good must not allow opportunities for passion practicing mindfulness, mind control, and having the principles of mind used in administration; executives are sufficient. Act as a good role model take responsibility for yourself use clear, polite language, semi-formal language, two-way communication language focus on management for maximum benefit consider school interests and have a public mind.

2. Results of the development of a Buddhist mechanics model of the school administrators under the Office of the Secondary Educational Service Area.

The researcher designed the study to develop a Buddhist mechanics model of the school administrators under the Office of the Secondary Educational Service Area using focus group discussion by Buddhist scholars in educational administration. In education management expert, the research results were found that Buddhist mechanics model of school administrators. The developed secondary education service area office has important factors and has a causal relationship. The results that will lead to the Buddhist principles of the school administrators include 1) self-defense strategies, and 2) management with knowledge and the results of the examination showed that there is a possibility is correct and suitable.

3. The results of the presentation of the Buddhist mechanics model of the school administrators under the Office of the Secondary Educational Service Area by examining the validity of the developed causal relationship model and the analysis of direct and indirect influences between the variables in the model.The results of preliminary statistical analysis of variables used in the Buddhist mechanics model of school administrators under the Office of the Secondary Educational Service Area in all 3 areas, it was found that the average was at the high level of all. When considering the skewness value, it was found that most of them had a negative skewness value, indicating that the data of all the variables was above the mean when looking at the kurtosis (Ku), it was found that all variables had a high-altitude distribution curve lower than the normal curve. The distribution coefficient (C.V.) showed that all the variables had a large distribution of the data, and when considering the distribution coefficient (C.V.), the data were similar. There is little distribution of information as in Table 1 as follows:

Table 1 Initial statistical values of observed variables in a causal relationship model showing influence of Buddhist mechanics model of school administrators under the Secondary Education Service Area Office (N = 435).

Buddhist mechanics model of school administrators Under the Office of the Secondary Educational Service Area	Mean	S.D.	Sk	Ku	C.V.
Self-defense mechanics	4.63	0.46	-1.44	1.65	9.95
Management with intelligence and knowledge.	4.52	0.46	-0.74	-0.53	10.22
Buddhist mechanics of the school administrators	4.65	0.46	-1.39	1.18	9.91

The results of the analysis of the relationship between the observed variables of the Buddhist mechanics model of the school administrators under the Office of the Secondary Education Service Area, the analysis results showed that Bartlett's Test of Sphericity, which is a hypothesis test statistic that the identity matrix has a test statistic of 5752.745 (p = .000), indicating that the correlation matrix between all observed variables of the sample is significantly different from the identity matrix. The statistical significance at the .01 level and the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) index were .913 with an approach of 1 indicating that the variable in the correlation between these data sets is appropriate for further analysis of the SEM model.

When considering the correlation between 12 observable variables, it was found that the correlation between the variables with a statistically significant difference from zero (p <.01) was 66 pairs with a range of correlation coefficients in the range of 0.481. to .839, when considering the correlation of observable variables, it was found that all were statistically significant (p <.01) and was positive, indicating that the correlation of all variables was in the same direction.

The results of the consistency analysis with empirical data of the Buddhist mechanics model of school administrators have 3 latent variables under the Secondary Education Area Office in the data analysis: Self Defense Mechanism (SELFD), Cognitive Management (MANAW), Buddhist Principle of Education (BDFA). Twelve observable variables were used in the data analysis when considering the results of the Buddhist mechanics model analysis of the school administrators under the Office of the Secondary Educational Service Area found that the model is consistent with the empirical data. The statistic used to verify the consistency between the model and the empirical data was that the chi-square was 21.25 degrees of freedom equal to 14, the probability (p) was .095, that was, the chi-square difference, significantly different from the center, indicating that the main assumption that the Buddhist mechanics model of the school administrators under the Office of the Secondary Educational Service Area developed in harmony with empirical data corresponding to

the analysis results, the harmonization index (GFI) is .992, the modified harmony index (AGFI) is .995, which is closer to 1 and the root of the mean square index. The remainder (RMR) is .011, which approaches zero and the remainder in the form of the Largest Standardized Residuals score of 3.131, supporting that the research model is consistent with the empirical data as shown in Fig. 1.

Chi-Square=21.25, df=14, P-value=0.09537, RMSEA=0.035

Fig. 1 Causal relationship model, Buddhist mechanics of the school administrators Under the Office of the Secondary Educational Service Area.

V. DISCUSSIONS

The researcher found important points to discuss the results of the development of the Buddhist mechanics model of the school administratorsunder the Office of the Secondary Educational Service Area as follows :

1. The Buddhist mechanics of the school administrators Under the Office of the Secondary Education Area found that the self-defense mechanism school administrators have successful administration. as a self-defense strategy corresponds to the defense mechanisms that achieve maturity with defined operational goals or objectives. There is a job assignment to colleagues with clearly divided work duties using a management process with the PDCA quality cycle, there is adaptation during the operation and pride when managing successfully guidelines for solving problems in administration as a self-defense strategy corresponding to the defense mechanism against the situation encountering problems and obstacles during the administration, the executives can adapt to face them very well. There are solutions to problems in the administration. Able to face various situations calm your mind first, and then analyze to find the root cause of the problem meetings are held to discuss, plan and brainstorm find a solution including applying the royal science to apply in solving problems. Management of conflicts within schools as a self-defense strategy corresponding to a compromise defense mechanism administrators can deal with conflicts within the school. Manage problems with compromise, have patience, work patience listen to colleagues' thoughts and reasons, able to coordinate with all parties direction of administration within the school as a self-defense strategy corresponding to the predictive protection mechanism. Management has forecasting or planning ahead of operations, set the direction of administration within the

school and create a calendar of operations. Plan for the stresses that will arise in the future and have a careful planning of how you face them. Master in Administration as a self-defense strategy corresponding to the anti-mimic mechanism has a role model in administration apply managerial principles and good speaking techniques from others, apply good ideas from model people adjust the personality to be similar to the model. This is related to the concept of simulated and moderated Dithavanij that the mature defenses are psychological mechanisms considered to be the highest level corresponding to level I in DSM-IV. Adaptation and being in soundness of mind often contributes to dignity. Pride of oneself and forecast (anticipation) forecasts or planning ahead rationally [7] and in accordance with TanyapatLertchantarakun which discusses the types of self-defense strategies Situationalism refers to a way of adapting to a problem situation and the compromise type of situation is a mechanism that has a semi-meeting manner fight, not escape, not really, so it is a form that is expressed by choosing a new method change needs or goals [8].

The management with intelligence and knowledge (Satipatthana IV), the school administrators have placed themselves during their duties. It is management with intelligence and knowledge being consistent with being intellectual, cognizant of the physical condition, being mindful of self-control and display appropriate behavior, be in good shape during your duties, perform appropriate roles of leaders and followers can be a good role model for others dealing with situations that affect feelings. It is management with intelligence and knowledge. Being consistent with having intelligence, knowing the feelings conscious over his own feelings able to deal with situations that affect feelings understand and adjust your emotions to be able to accept what happens in different situations. There are ways to relieve stress in the workplace, patience, and calm able to control emotions dealing with situations that cause passion is an intelligent management. Being consistent with having wisdom, knowing the state of mind. Be conscious and restrained recognizing himself to be conscious of relieving desire deal with situations that cause passion adhere to the good, follow the rules use wisdom in reflection and not go along with temptation, principles of mind used in administration. It is management with intelligence and knowledge, being consistent with having intelligence, knowing the truth of management Stay mindful while performing duties use the principles of management behave in good morals use the principle of self-control, occupation and occupation in management, being responsible for his own duties, which is in line with the concept of Chakraphong Paiboon said that the place of consciousness is the place of consciousness, meaning that remembrance is aware of the four consciousness, which is to remember the four things: body, mindfulness, supervision. Look at being self-conscious and the physical of pity is the feeling of happiness; Mindfulness, directing, being aware of the mind,

or the state and symptoms of spirituality, is the Buddha's teaching. Consciousness, determination, judgment, or mindfulness, supervision, looks being simple [9].

Buddhist mechanics of the school administrators outstanding management is a Buddhist strategy of the school administrators corresponds to a good prototype do their duty perfectly have knowledge and management ability. Having leadership in management and able to be a model for others both in self-practice and performance appropriate as an executive management language is a Buddhist strategy of the school administrators corresponds to the words of honesty is a rhetorical executive communicate in polite words use friendly language during work. Being truthful in keeping your word use words that create harmony in the workplace, how to manage work for maximum benefit is a Buddhist strategy of the school administrators. Being consistent with having a public mind, that is, to perform one's duty with full willingness and strength to sacrifice one's happiness for the common good using both science and art in management for maximum benefit regularly participate in volunteerism and public interest activities and adhere to morality and ethics which is in line with the concept of Sunthorn Kothatyai said that professional education administrators in the education reform era, there should be some basic characteristics: must be a visionary, able to analyze the situation (analyze situation) to formulate a strategic plan and an action plan to achieve goals and policies appropriately have the ability to manage human resources is a good example in behavior for letting the subordinates use it as a role model and not use their positions and duties to seek benefits for themselves regardless of being directly or indirectly [10].

2. Development of a Buddhist Mechanism Model of the School Administrators under the Office of the Secondary Educational Service Area consists of 3 important elements as follows: Component 1: Self-Defense Mechanism has 5 main principles, consisting (1) Maturity protection mechanism, (2) Anti-situational defense mechanism, (3) compromise defense mechanism, (4) Predictive defense mechanism, (5) Anti-counterfeiting mechanism, Component 2: Management with intelligence, know-how, has four main principles, which are: (1) Intelligence, knowledge of the physical condition, (2) Intelligence, cognizance, feelings (3) Intelligence, knowledge of the mind, (4) Knowledge keeps up with the actual management Component 3: The Buddhist principles of the school administrators have 3 important principles, which are: (1) good model, (2) Vajesucharit (good conduct in word),(3) public mind, whose research results are consistent with some findings in the research. Surat Sridadej has researched model of effective administration of basic education institution administrators under the Office of the Basic Education Commission, the results of the research were the four key elements of administration are social system elements, namely the achievement of objectives, integration and preservation of patterns. Service Skills Components Basic school administrators must have essential administrative skills, including ethical skills, academic skills, technological skills, diagnostic skills, communication skills, and political skills.

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Administrative front elements, the basic duties of the school administrators, consist of process functions such as planning, organizing, the supervisory, leadership, control, and management role elements consist of 3 main roles which are: 1) Personnel Relational Role Group consists of the symbolic role of the organization, organization leadership role, relationship builder role, and the role of the team creator, 2) the information role group consists of the role of supervising and monitoring role of information publisher publicist role and the role of supervisor, 3) The decision-making role group consists of the role of entrepreneur, the role of the disruptor, role as a problem solver, the role of resource allocation, and its role as a negotiator, [11] and is consistent with some findings of the research have studied research on defensive strategies of school administrators. The research results were found that the defensive strategies of the school administrators can be classified into 55 strategies, with some of which have similar meanings or can be combined with other mechanisms. The researcher presented 20 strategies for this research, namely 1) suppression, 2) misrepresentation, 3) betraying others, 4) movement, 5) opposing reaction, 6) regression, 7) self-isolation, 8) fantasies, 9) reversal, 10) mimicry, 11) release 12) prediction, 13) seeing benefit, 14) humor, 15) suppression, 16) use intelligence, 17) compensation, 18) negation, 19) expression of action, and 20) indirect aggression [12].

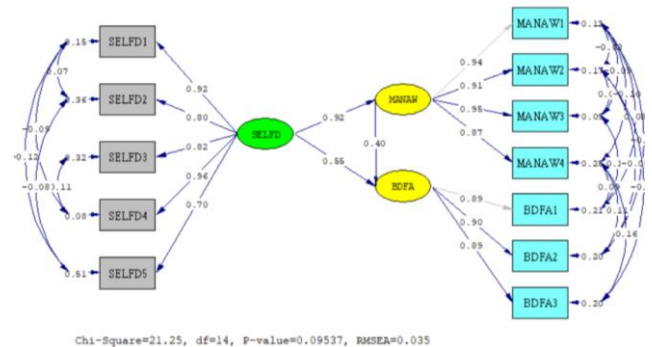3. The results of the presentation of the Buddhist mechanics model of the school administrators under the Office of the Secondary Educational Service Area. It was found that the results of the analysis of the Buddhist mechanics model of the school administrators under the Office of the Secondary Educational Service Area found that the model is consistent with the empirical data considering the direct and indirect influences between the variables in the model, it was found that the relationship between the Self Defense Mechanism (SELFD) variable and the Buddhist policy of the school administrators (BDFA) (correlation size = .920) were classified as direct influence is 552 and indirect influence is .369 which are combined influences is .920, it was found that direct influence was greater than indirect influence. Therefore, the Buddhist strategy of the school administrators must be managed with intelligence (Master of Mindfulness IV) is a component together with the self-defense strategy. This will result in a Buddhist strategy of the school administrators, namely the good model, Vajesucharit, with public mind as an important part of the school administration in line with the findings of some issues in the research, Sukapinya Srikhamthai conducted a research on the education management model according to the mindfulness principle. This is the application of management concepts in all 3 areas of study, including 1) self-administration is the application of management principles to apply to the education of executive self-management, 2) human management is the application of management principles to be applied Applies to education in management of people, co-workers of the executive, 3) Administration is the application of

management principles to apply to the education of management education of administrators. 2. Mindfulness is a collaborative process of mindfulness and wisdom (smallness) is consciousness to let wisdom see by using mindfulness according to the view with wisdom and know as to the truth that happened in all four areas, namely body, feeling, mind and Dhamma, consisting of 1) Kayanupassana (the mind-seeing of the body). Intellectually aware of the physical condition. (Seeing to see compassion) is the use of mindfulness to follow with wisdom, knowing the feeling of happiness and suffering or not happy, not suffering that arises 3) spirituality (Seeing the mind) is the use of consciousness according to the mind, knowing the state of mind and 4) Thammanupasana. (Seeing the Dhamma) is the use of mindfulness according to the view with wisdom and know all the stories that are known to think that occurs in the mind. It is the process of applying administrative principles related to educational administration by integrating with the mindfulness principle to benefit the educational administration of the education administrators are composed of 1) principles, 2) objectives, and 3) processes as a process of education administration according to the mindfulness principle by relying on the process of working together of mind and intelligence (smallness) is consciousness to see by using mindfulness according to the wisdom and understanding according to the truth that happened in all four areas, namely Kayanupassana (see body), (See the feelings), the mind,(see the mind) and the Dhammanupatsana (see the Dharma) consist of (1) self-management according to mindfulness 20 principles, is the application of management principles to apply to the study of self-administration. (2) People management according to mindfulness 14 principles is the application of management principles to apply to the education of management of people, associates of the executives. (3) Management according to mindfulness 15 principles is the implementation of management principles to be applied to the education of executive education [13].

CONCLUSION

Development of a Buddhist Mechanism Model of School Administrators Under the Secondary Education Area Office, the self-defense strategy refers to the strategies that humans use to reduce their emotional state and keep the mind in a balanced state. There are five elements within the components: the defense mechanism that reaches maturity. Situational defense mechanism compromise defense mechanism. Predictive defense mechanisms and imitation defense mechanisms, which are integrated with intelligent management, refer to mindfulness 4: the location of consciousness. The implication is that there is always consciousness and the principle of mindfulness or the use of mindfulness in the four bases, namely, the body, the mind, the mind, and the Dhamma to know the truth. (Kayanupasana Satipatthana) 2) Wise, be aware of feelings (Vedananupusana Satipatthana) 3) Wise, know as well as

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mental state. (Consciousness, mindfulness) 4) have intelligence, know-how, management based on reality (Dhammanupasana Satipatthana) will result in a Buddhist strategy of the school administrators, which is a good model, honesty and public mind.

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Elderly holistic health management model According to the principle of threefold in Thai society

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Abstract— The purposes of this research article were 1) to study the state of holistic well-being management, 2) to develop a holistic well-being management model, and 3) to propose a model of holistic well-being management of the elderly according to the threefold training in Thai society. Mixed methods research was designed. Quantitative data were collected from 500 monks and the elderly, and were analyzed by descriptive statistics consisted of percentage, mean, standard deviation including Pearson correlation analysis and model analysis with computer package programs. Qualitative data were collected by interview 10 key informants and focus group discussion with 10 experts. Results indicated that the state of holistic well-being management of the elderly in all 4 aspects was at a high level. All the variables were shown the correlation with statistically significant at the .001 level, and the correlation coefficients ranged from .664 to .839. The correlation matrix between factors was significantly different from the identity matrix. Holistic health management model was developed which consisted of 4 parts: Part 1 Introduction, Part 2 Model, Part 3 Procedure for utilization, Part 4 Conditions for success. A model for the holistic well-being management of the elderly according to the threefold training in Thai society consisted of 4 parts. Part 1: Introduction, Part 2: Prototype of holistic well-being factors on the aspect of physical, mental, social, intellectual/spiritual aspects, and the threefold training including 4 sets of knowledge of self-care and potential development of the elderly, Part 3 steps of utilization integrated with the threefold training, and Part 4: Conditions for success was validated the model with empirical data (MHHM). The results of 161 tests of the conformity of the model with found that the model was consistent with the empirical data based on the chi-square value (χ^2) = 261.89, df = 132, p = 0.089.

Index Terms— Model of Holistic Health Management, Elderly According, Threefold Principles

I. INTRODUCTION

Elderly trends during the last 25 years of the 20th century, the elderly population in Thailand grew by 3.7 percent annually, the highest rate in East and Southeast Asia [1]. In 2000, Thailand had 9.6 percent of the elderly population, which is the largest in Southeast Asia. This proportion rose to 11.5 percent in 2010, compared with the United Nations designation. Considered that Thailand has entered the aging society initially. It is estimated that the proportion of the elderly will increase to 19.1 percent in 2025 and 26.4 percent in 2050. This increase in the aging population is faster than it was in many western countries times [2].

The Ministry of Social Development, Human Security, states that advancing to an aging society is a problem in which the government has to formulate strategies for planning to support it because while the number of older people increases. The number of children and laborers will be reduced. The proportion of the labor force (aged 15-59) in the total population will drop from 67.6 percent in 2010 to 65.9 percent and 61.4 percent in 2020 and 2030,

respectively. The proportion of elderly people (age 60 years and over) will increase from 11.9 percent to 17.5 percent and 25.1 percent over the same period. As a result, workers will have to bear the burden of taking care of the elderly more .6 In 2007, 6 workers have burden to care for the elderly, but it is expected that in the year 2027, 3 workers will have to take care of the elderly .1 elderly. In addition, demographic change is a pressure to make the Thai elderly a major risk group. In addition to the health risks that create limitations in our daily life, Thai elderly also have economic risk, because there is no income guarantee and have insufficient income to live and has a high proportion that fall under the poverty lime in the future, caring for the elderly by grandchildren is part of Thai culture [3].

While the population structure of Thailand has changed dramatically, evolution of medical and public health technology causing the Thai people to live longer, the number of elderly population increasing childhood and labor population declining during the 11th National Economic and Social Development Plan (2012-2016) from the proportion of child population: labor: elderly 20.5%:

67.6: 11.9% in 2010 to 18.3%: 66.9: 14.8% in the year. The index results in planning to develop the country to accommodate the growing elderly in the future [4].

The top executives of all 4 ministries consist of the Ministry of Interior Ministry of Social Development and Human Security Ministry of Education and Ministry of Public Health Led by the Minister of Public Health realized the importance and urgent need for operational integration. Since the policy level framing of strategic goals, measures and making action plans for driving into action at the local level for clarity based on vision and goals and strategy according to the 2nd National Plan on the Elderly (2002-2021), revised No. 1, 2009, as follows: vision: "The elderly are the milestones of society." The goal of the elderly can take care of themselves able to support daily life and have a good quality of life set 3 common strategic goals (3S), including 1) Social Participation. (Promoting participation in society), 2) Social Security (promoting security), 3) Strong Health (promoting good health) and setting indicators for 5 years (2013-2017) to it is a guideline to drive effective implementation at the local level and achieve the next goal [5].

Phra Promkhunaporn (P.A.Payutto) [6] explains that "well-being" or "health" is the same word in Pali, but the Thai language praises "W" as "Ph" as "health" when the meaning of health is physical, mental, social and intellectual health, so it means near happiness. The state of being unhappy is a perfect state. The modern term is called "Holistic", Buddhist happiness or Buddhist health consisting of transcendence (Brightness) Wimutti (liberation) Wisutti (purity, not frustrated, gloomy) Peace (not anxious, anxious), which is a condition that is the goodness of life. [7] Mentioning the well-being of the holistic life that can be enjoyed must manage the mind to have a positive mental state True health must follow the truth of the nature of life. What is the body of a healthy life? How do body and mind relate to the environment? To be successful, you must develop your mind and intelligence. Intelligence is a key element in the way we relate to the environment and the state of mind with wisdom to illuminate the pathway to guide the principles of human development of Buddhism, holistic development is therefore directly about well-being which is consistent with the threefold principle in terms of human development in the book of Buddhism that "If speaking in the language of modern scholars or according to the principles of education in the Eastern line, Athisilasikkha, Athichittasikkha and Athipanyasikkha covers the realization of social development, emotional development, and intellectual development, respectively. It is, but will differ in scope of meaning and Sikkha 3 has a specific purpose in line with Buddhism. A person must be trained to discipline (including responsibility and good social relationships) to grow emotionally. (The monk said that the mind is strong, refined, has good quality and competence) and the cognitive growth (beginning with a rationale) Sikkha 3 together and complement each other threefold is a training system from outside to find inside from the rough, go to the fine parts. And from the simpler parts to the harder and deeper parts. When practicing in the inner detail, the mental and intellectual stages. As a result, it returns to help living outside, such as having a stable and honest behavior, self-discipline, not having to reluctance or concentrate on controlling, maintaining, thinking, solving problems and doing various activities with pure wisdom by implication, when practicing throughout the system of science and then the whole life system became the system of Makkah, they're all consistent inside and out. "[8]

The development of training for the elderly is another way to prepare for the structural changes of the population to enter the aging society. It is an issue that is gaining great attention, both nationally and globally, due to its widespread impact at the macro level: impact on gross domestic product (GDP), per capita income, savings, investments, government budget, employment, labor productivity, and micro levels, including their impact on various markets, products and services, especially in the financial and health aspects; it is urgent that systematic planning is needed and take action in advance as measures in many respects, they take time to implement. Before seeing tangible results [9].

From the background and importance of the problem Therefore, the researcher is interested in studying the holistic health management model of the elderly according to the three-Sikkha principle in Thai society as a guideline for promoting. Developing the overall well-being of the elderly through the three-fold principle for better quality Able to carry on with their daily life.

II. RESEARCH OBJECTIVES

The purposes of this research article were 1) to study the state of holistic well-being management, 2) to develop a holistic well-being management model, and 3) to propose a model of holistic well-being management of the elderly according to the threefold training in Thai society.

III. RESEARCH METHODS

Step 1: To study the overall well-being of the elderly in Thai society, there are 3 steps: 1) Study documents on the study of the overall health management of the elderly in Thai society. Research textbook website Results: Information on the overall health management status of the elderly in Thai society 2) Study of the holistic health management of the elderly according to the Tri-sikkha principles in Thai society distribute questionnaires on the overall health management status of the elderly in Thai society from monks and elders in temples of Thailand using a 1: 20 parameter based on the concept of Hair, 500

samples were obtained. Distribution coefficient (C.V.), skewness and kurtosis with a program, interviewed 10 Key informants on the overall health management of the monks and the elderly in Thai society.

The second step is to develop a model of the holistic well-being of the elderly according to the Tri-Sikkha principles in Thai society, there are 2 steps: Developed by discussing resource groups: qualified persons / scholars / seniors by purposive sampling, specifying criteria for the selection of 10 key informants.

The third step is to propose a model of holistic health management for the elderly according to the Tri-Sikkha principles in Thai society from objective item 2, the results of the examination of the holistic health management model for the elderly according to the Tri-Sikkha principles in Thai society. The holistic health management model was analyzed the elderly according to the Tri-Sikkha principles in Thai society to examine the consistency of the holistic health management model of the elderly according to the three-sided principle of the Thai society with empirical data. Analysis of confirmation elements (Confirmatory Factor Analysis: CFA) to examine the consistency of the holistic health management model of the elderly according to the Tri-Sikhism principles in Thai society with empirical data by using computer program. Results were obtained from data analysis to examine the consistency of the elderly holistic health management model according to the Tri-Sikkha principles in Thai society. Improve and present the model of holistic well-being management of the elderly according to the Tri-Sikkha principles in Thai society.

IV. RESEARCH RESULTS

1. Results of the study of the overall health management status of the elderly in Thai society. The research results were found that the monks over the age of 60 and the elderly had opinions on the overall health management of the elderly in Thai society in all four areas. Considering each side found that all aspects were at a high level in descending order is physical well-being (3.88), social well-being (3.78), cognitive / spiritual well-being (3.66) and mental well-being (3.62), respectively, as shown in Table 1.

Table 1 Shows the mean and standard deviation of the respondents based on their opinions on the 4 aspects of the overall health management of the elderly in Thai society

	Studied variables	$\bar{x}$	S.D.	Rating
1.	Physical health	3.88	0.764	high
2.	Psychological wellbeing	3.62	0.857	high
3.	Social well-being	3.78	0.917	high
4.	Cognitive / spiritual well-being	3.66	0.885	high
	Total	**3.74**	**0.781**	**High**

The results of the preliminary statistical analysis of the state of the holistic health management of the elderly in all four aspects of Thai society were found to be at the high level of all considering the skewness of the overall health management status of the elderly in Thai society. Most of them had a negative skewness value show that the monks aged 60 years and over and most of the elderly had opinion that was above average and the distribution of the data is similar to the normal curve and considering the value, it was found that the overall health management condition of most of the elderly in Thai society was negative, indicating that the distribution characteristics of the data were less than the normal curve. The information is not distributed much and when considering the distribution coefficient (C.V.), it was found that the data were similar. There is little distribution of information as in Table 2 as follows.

Table 2 The overall health management status of the elderly in Thai society using descriptive statistics.

The overall health management of the elderly in Thai society	Mean	S.D.	Sk	Ku	C.V.
Physical health	3.88	0.764	-.700	0.311	0.24
Psychological health	3.62	0.857	-.397	-0.298	0.20
Social health	3.78	0.917	-.517	-0.344	0.10
Cognitive health Soul	3.66	0.885	-.470	-0.232	0.17

The correlation analysis results of the overall health management status of the elderly in Thai society were all statistically significant at the level of .001. The relationships between the elements were significantly different from the identity matrix and the overall health management status of the elderly in Thai society is sufficiently related able to analyze the model of the holistic health management of the elderly according to the three–sided principles in Thai society as shown in Table 3:

Table 3 Mean, Standard Deviation and Pearson Correlation Coefficient The overall health management of the elderly in Thai society.

Variables	Body	Mind	Social	Wisdom
1. Body	1.000			
2. Mind	.704**	1.000		
3. Social	.667**	.829**	1.000	
4. Wisdom	.664**	.839**	.836**	1.000
Mean	3.88	3.62	3.78	3.66
S.D.	0.764	0.857	0.917	0.885

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .849

Bartlett's Test of Sphericity Approx. Chi-Square = 1.613 df = 6 p-value (sig) = 0.000

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The results of interviews with the monks and the elderly in Thai society, 10 key informants, with specific qualifications were those who played a role in promoting the holistic well-being of the elderly or people over 60 years of age with complete physical health. There are four aspects of the overall health management of the elderly in Thai society: 1) physical well-being, 2) psychological well-being, 3) social well-being, 4) cognitive / spiritual health. The elderly should follow 5 states: food, vegetables, fish, food, should eat about 80% will improve our health, weather, mood, exercise and danger, not consuming things that are not beneficial to the body able to adapt to society and environment accept the truth about yourself. Understanding the differences between individuals take responsibility stay with family spend time with children, avoiding sympathizers. There is a rule by visiting relatives once a week, knowing and understanding separately. In the reason of good, evil is a good example for children, has a public mind, respectfulness, honoring the 5 precepts will be good for health by letting the elderly pray Samatha- concentrates on the activities of the community every week.

2. Develop a holistic health management model for the elderly according to the three-sided principles in Thai society consisting of 4 parts as follows:

Part 1: namely 1) Environment, both internal and external environment must be favorable including the difference between the characteristics of the elderly. 2) Principle including the basic concept and conditions of use. Conditions for successful implementation of the pattern and precautions to prevent problems that may arise, including viewing and the elderly in 4 ways: family care, institutional care, community care, caring in special situations. 3) Objectives: 8 objectives for caring for the elderly.

Part 2: The model consists of 1) System, including 1) elements of holistic well-being. There are 5 key components: 1) physical well-being, 2) psychological well-being, 3) social well-being, 4) cognitive/spiritual well-being and health conditions according to the Tri-Sikkha principles; and development of "good health" abilities for the elderly; 2) psychological well-being and develop the potential of the elderly "Security in life", 3) social well-being, knowledge book, self-care and develop the potential of the elderly "Social learning", 4) health, intellectual/spiritual, self care knowledge book and develop the potential of the elderly "have a job" 3) Management Process: Elderly care according to the rights of the elderly according to the United Nations on the care of the rights of the elderly. If it optimized for Thailand, the researcher opines that the government should set guidelines for the development of the elderly in various forms with the basic concept of today's elderly.

Part 3 steps to apply it consists of 1) Structure is the mutual link between various elements. This will help make the elderly holistic health management model in accordance with the Tri-sikkha principles of Thai society to be effective. 2) Decision - making process or well assessed that as a way to achieve the objectives and the goal of the pattern which has the criteria for making decisions, which are fundamental factors that enable people in society to take care of managing the overall well-being of the elderly successfully implemented the holistic health management model of the elderly according to Tri-Sikkha principles of the Thai society for the benefit of checking how much the format functions as designed. These three principles are simply called precept (Sila), meditation (Samadhi), and total wisdom (Panna) called "Tri-Sikkha" depending on the context of Thai society, such as the physical condition of the elderly, psychological condition of the elderly, social conditions of the elderly, economic conditions of the elderly, and government policies.

Part 4 conditions for success depends on the context of Thai society, such as the physical condition of the elderly, psychological condition of the elderly, social conditions of the elderly, economic conditions of the elderly, and government policies.

3. Propose a model of holistic well-being management of the elderly according to the threefold training in Thai society.

A complete model of the holistic well-being of the elderly in Thai society consists of 4 parts:

Part 1: The leading part is 1) environment, both internal and external environment must be favorable including the difference between the characteristics of the elderly. 2) Principle including the basic concept and conditions of use. Conditions for successful implementation of the pattern and precautions to prevent problems that may arise including viewing and the elderly in 4 ways: family care, institutional care, community care, caring in special situations. 3) Objectives: 8 objectives for caring for the elderly.

Part 2: The model consists of 1) system including 1) elements of holistic well-being. There are 5 key components: 1) physical well-being, 2) psychological well-being, 3) social well-being, 4) cognitive/spiritual well-being and health conditions according to the Tri-Sikkha principles; development of "good health" abilities for the elderly; 2) psychological well-being and develop the potential of the elderly "security in life", 3) social well-being, knowledge book, self-care and develop the potential of the elderly "Social learning", 4) health, intellectual/spiritual, self care knowledge book and develop the potential of the elderly "have a job" 3) Management Process: elderly care according to the rights of the elderly according to the United Nations on the care of the rights of the elderly. If it is optimized for Thailand, the researcher opines that the government should set guidelines for the development of the elderly in various forms with the basic concept of today's elderly.

Part 3 steps to apply it consists of 1) structure is the mutual link between various elements. This will help make the elderly holistic health management model in accordance with the Tri-sikkha principles of Thai society to be effective. 2) Decision Making process or well assessed that as a way to achieve the objectives and the goal of the pattern which has the criteria for making decisions, which are fundamental factors that enable people in society to take care of managing the overall well-being of the elderly successfully implemented the holistic health management model of the elderly according to the Tri-sikkha as in Fig.1.

Chi-Square=261.89, df=132, P-value=0.08930, RMSEA=0.008

Fig. 1 The results of the verification of the conformity of the holistic health management model of the elderly according to the threefold principle in Thai society, created with empirical data

V. DISCUSSIONS

The researcher found the following important points to discuss the results of the elderly holistic health management model in the Thai society as follows:

1. The results of the study of the overall health management status of the elderly in Thai society found that the monks aged 60 years and older and the elderly had opinions on the overall health management of the elderly in Thai society. Overall, there were opinions at a high level in all aspects and variables considering the skewness of the overall health management

status of the elderly in Thai society. Most of them had a negative skewness value showed that the monks aged 60 years and over and most of the elderly had opinion that was above average, the distribution of the data is similar to the normal curve, considering the value, it was found that the overall health management condition of most of the elderly in Thai society was negative, indicating that the distribution characteristics of the data were less than the normal curve. The information is not distributed much, considering the distribution coefficient (C.V.), it was found that the data were similar that had little distribution of information. All of them were statistically significant at the 0.001 level. The correlation coefficient range was between .664 and .839. The correlation matrix characteristics between the elements were statistically significant different from the identity matrix and the overall health management status of the elderly in Thai society is sufficiently related able to analyze the model of the holistic health management of the elderly according to the Tri-Sikkha principles in Thai society, which is consistent with the results of interviews with the monks and the elderly in Thai society. The elderly should follow 5 states: food, vegetables, fish, food, should eat about 80% will improve our health, weather, mood, exercise and danger, not consuming things that are not beneficial to the body Able to adapt to society and environment accept the truth about yourself. Understanding the differences between individuals take responsibility stay with family spend time with children, avoiding sympathizers. There is a rule by visiting relatives once a week, knowing and understanding separately. In the reason of good, evil is a good example for children, has a public mind, respectfulness, honoring the 5 precepts will be good for health by letting the elderly pray Samatha-concentrates on the activities of the community every week. The results of this research are consistent with the research of Phramaha Pongprida Paripunno (Champasri) proposed a thesis on "Prevention and treatment of diseases according to Buddhism". This thesis aims to study the nature and causes of physical and mental illnesses and to study the treatment of such diseases that appeared in the Tipitaka and commentary on the study found that Buddhism categorizes disease into two categories: first, physical disease is caused by four elemental imbalances, variations in the seasons, irregular physical exercise in the past and present life, etc. This physical disease has 3 methods of treatment: (1) medical treatment such as using herbal medicine, (2) Dhamma therapy is practice meditation, (3) psychic healing such as the use of Putthanupab (power of Buddha) Secondly, psychological diseases are caused by obsessive passion. There are 3 levels of destructive passion, such as Nukasai, medium desires such as neutrals, and crude passions, such as hurting others, stealing, mental illness. That can be treated with Vipassana. In addition, according to the principles of Buddhism Prevention of disease must be followed by three principles, including precepts, meditation and wisdom [10].

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2. Develop a holistic health management model for the elderly according to the Tri-Sikkha principles in Thai society, consisting of 4 parts as follows:

Part 1, namely 1) Environment both internal and external environment must be favorable including the difference between the characteristics of the elderly. 2) Principle including the basic concept and conditions of use. Conditions for successful implementation of the pattern and precautions to prevent problems that may arise including viewing and the elderly in 4 ways: family care, institutional care, community care, caring in special situations. 3) Objectives: 8 objectives for caring for the elderly.

Part 2: The model consists of 1) System, including 1) Elements of holistic well-being. There are 5 key components: 1) physical well-being, 2) psychological well-being, 3) social well-being, 4) cognitive/spiritual well-being and health conditions according to the Tri-Sikkha principles; development of "good health" abilities for the elderly; 2) psychological well-being and develop the potential of the elderly "Security in life", 3) social well-being, knowledge book, self-care and developing the potential of the elderly "Social learning", 4) health, intellectual/spiritual, self care knowledge book and develop the potential of the elderly "have a job", 3) Management Process: elderly care according to the rights of the elderly according to the United Nations on the care of the rights of the elderly. If it optimized for Thailand, the researcher opines that the government should set guidelines for the development of the elderly in various forms with the basic concept of today's elderly.

Part 3 steps to apply it consists of 1) Structure is the mutual link between various elements. This will help make the elderly holistic health management model in accordance with the Tri-sikkha principles of Thai society to be effective. 2) Decision-making process or well assessed that as a way to achieve the objectives and the goal of the pattern has the criteria for making decisions, which are fundamental factors that enable people in society to take care of managing the overall well-being of the elderly Successfully implemented the holistic health management model of the elderly according to the three-sided principle of the Thai society for the benefit of checking how much the format functions as designed. These three principles are simply called precept (Sila), meditation (Samadhi), and total wisdom (Panna) called "Tri-Sikkha" depending on the context of Thai society, such as the physical condition of the elderly, psychological condition of the elderly, social conditions of the elderly, economic conditions of the elderly, and government policies.

Part 4 conditions for success depend on the context of Thai society, such as the physical condition of the elderly. psychological condition of the elderly, social conditions of the elderly, economic conditions of the elderly, and government policies. The results of this research reflect that the three-part

elderly holistic well-being model in Thai society relies on the four essential elements of the model, and each of them plays an important role in the implementation of the model to promote the holistic well-being of the elderly. Elderly are cared for Keep it intact The findings of this research are consistent with Phra Phromkunaporn (P.A.Payutto) wrote a book on "Modern Medicine in Buddhism" is a collection of writings about medicine and health care as well as ethical problems related to modern medicine according to Buddhism principles. The content is divided into 5 parts: Part 1 patient: sick but the body and heart are happy. There are 4 topics, Dhamma Talk for patients' Relatives, Buddhist Methods for Rehabilitation of Health: Substances of Health and Integrity and Buddhism and Organ Donation, Part 2: Medicine: Patients, Hope, Worship Society consists of Keep the heart in mind when treating patients. Globalization: the role of doctors and the hope of patients Internal Medicine and Ethics Problems And medical ethics for the new millennium, part 3 medicine: reliance on all eras contain The Fundamentals of Medical Medicine: Advancing in the Crisis Age Studying Medicine in Thai Society and Buddhist medicine. Region 4 Medical problems: the world grows more and more people face, Help me die quickly or help me die, Karma and Genetic Diseases in Buddhism Abortion, Assorted Questions and Answers: Modern Medical Technology and Ethics in Buddhism and Life, Ethics and Medical Research, Part 5: Civilization Example: Civilization must have an answer, Contain Dharma wins AIDS [11].

3. To propose a model for the holistic health management of the elderly according to the Tri-Sikkha principles in Thai society.

A complete model of the holistic well-being of the elderly in Thai society consists of 4 parts:

Part 1: The leading part is 1) environment both internal and external environment must be favorable including the difference between the characteristics of the elderly. 2) Principle including the basic concept and conditions of use. Conditions for successful implementation of the pattern and precautions to prevent problems that may arise including viewing and the elderly in 4 ways: family care, institutional care, community care, caring in special situations 3) Objectives: 8 objectives for caring for the elderly.

Part 2: The model consists of 1) system, including 1) elements of holistic well-being. There are 5 key components: 1) physical well-being, 2) psychological well-being, 3) social well-being, 4) cognitive/spiritual well-being and health conditions according to the Tri-Sikkha principles; development of "good health" abilities for the elderly; 2) psychological well-being and develop the potential of the elderly "Security in life", 3) social well-being, knowledge book, self-care and develop the potential of the elderly "Social learning", 4) health, intellectual/spiritual, self care knowledge book and develop the potential of the elderly "have a job" 3) Management

Process: Elderly care according to the rights of the elderly according to the United Nations on the care of the rights of the elderly. If It optimized for Thailand the researcher opines that the government should set guidelines for the development of the elderly in various forms with the basic concept of today's elderly.

Part 3 steps to apply it consists of 1) Structure is the mutual link between various elements. This will help make the elderly holistic health management model in accordance with the three-sided principle of Thai society to be effective. 2) Decision Making process or well assessed that as a way to achieve the objectives and the goal of the pattern has the criteria for making decisions, which are fundamental factors that enable people in society to take care of managing the overall well-being of the elderly successfully implemented the holistic health management model of the elderly according to the three-sided principles 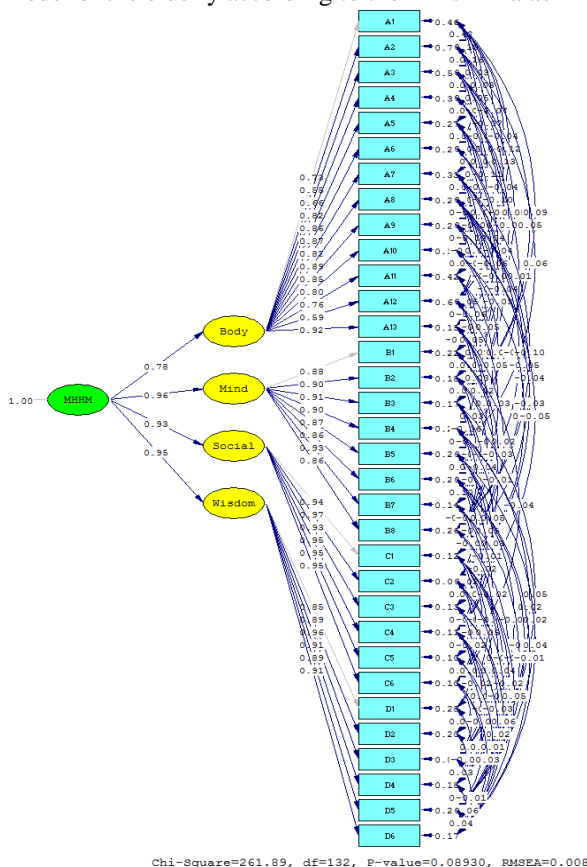of the Thai society for the benefit of checking how much the format functions as designed. These three principles are simply called precept(Sila), meditation (Samadhi), and total wisdom (Panna) called "Tri-Sikkha" depending on the context of Thai society, such as the physical condition of the elderly, psychological condition of the elderly, social conditions of the elderly, economic conditions of the elderly, and government policies.

Part 4 conditions for success depend on the context of Thai society, such as the physical condition of the elderly. Psychological condition of the elderly, social conditions of the elderly, economic conditions of the elderly, and government policies.

The results of the examination of the conformity of the holistic health management model of the elderly according to the Tri-Sikkha principles in Thai society created with empirical data. The model of the holistic well-being of the elderly according to the Tri-Sikkha principles in Thai society with empirical data (MHHM), the researcher has adjusted the model of the holistic well-being of the elderly according to the Tri-Sikkha principles in Thai society 161 times, it was found that the model was consistent with the empirical data based on the chi-square values ($\chi 2$ = 261.89, df = 132, p = 0.089), which differed from zero. The harmonization index (GFI) is 0.849, the corrected degree of harmony index (AGFI) is 0.744, the square root of the residual mean (RMR) is 0.03 and the root. The second of the mean quadratic error of the estimation (RMSEA) is 0.008, indicating that the model is consistent with the empirical data. There are four sets of knowledge of self-care and development of the elderly in life security including 1) physical health, self-care knowledge book and developing the potential of "healthy" elderly, 2) psychological well-being and develop the potential of the elderly "Security in life", 3) social well-being, knowledge book, self-care and developing the potential of the elderly "Social learning" 4) health, intellectual / spiritual, self-care knowledge book and

developing the potential of the elderly. The results of this research show that the monks and the elderly have opinions that are consistent with the empirical data of the elderly holistic well-being model in Thai society. It can be integrated into the promotion of the holistic well-being of the elderly with a threefold principles for the elderly to have complete physical, mental, social and intellectual health. In line with the research of Assoc. Prof. Pittaya Jarupunpol and the Faculty proposes a research project on "Well-being of the monks in Bangkok: situation, problem, solution And promote holistic health "by studying the monks from 3 districts of Bangkok, namely the inner, middle and outer layers, totaling 31 temples, 417 monks participated in the project between October 2003 - July 2004. The purpose of this study was to assess well-being of the monks in a holistic way from situations, problems, solutions and promote holistic health. The study found that most monks range from 20–30 years in health care behaviors such as food consumption exercise physical examination is in the fair level. The factors that influenced health care behavior were self-efficacy, age, perception, barriers and perceived health status and the perception of the benefits of self-care, etc. For mental health, it was found that monks have high stress levels and factors affecting the care and stress therapy are stress level social support, age, education level, magazine factors. The environmental health aspects of the temples are low to medium. Most temples do not have a systematic development plan. Environmental sanitation in housing and solid waste management needs to be improved urgently. [12] In line with the research of Sri Muang Phangrit, studied the quality of life development of the elderly by themselves, their families and communities in Ayutthaya Province. It consists of 5 areas: physical, mental, environmental, social relations and satisfaction and found that all 16 independent variables were able to explain the variation in the quality of life of the elderly. The social, environmental, psychological, and satisfaction relationships were 33.8%, 17.9, 13.2, 9.7 and 9.3% respectively. The guidelines for developing the quality of life for the elderly required at the individual level consisted of preparation of knowledge and practice in health from adulthood. Children until old age financial preparation by saving money since working age to facilitate being an elderly person who can rely on themselves. At the family level, children should have gratitude, love, warmth providing support to the elderly for the community level elderly should be encouraged to play roles and participate in community activities build a strong community, motivate community, leaders, and people to think together to create activities according to the needs and in harmony with the way of life by relying on local wisdom and resources being a good example focus on being proactive In the development of knowledge and cooperation work to improve the quality of life of the elderly [13].

CONCLUSION

The development of the holistic well-being of the elderly according to the three-fold principle is physical well-being having a healthy body without disease, not starving, there are four factors that are sufficient for the convention, psychological well-being. To think for a systematic reason having a heart that is fresh, cheerful, radiant, peaceful, known to let go in various problems complete with mental health, having a strong mind, stability, social well-being, having relationships with family members, having a supportive relationship with the environment, having a good life, having the right to freedom that is protected able to adapt to change cognitive / spiritual well-being, training for intellectual development, enhancing knowledge, and thinking, having the knowledge and good idea, the job and the right, having good mental health. There is a sacrifice benevolence. There is religion as an anchor of the mind, integrated with three principles: 1) The precepts are the development of social relations, having a supportive relationship with the social environment, having good behavior in relation to fellow human beings with discipline. The elderly can adjust to live well with their family and society with precepts as a factor for good health, 2) Meditation is to develop the mind to be more prosperous, good, strong, happy, the elderly who have faith in Buddhism will develop compassion and follow meditation. This will help to have a more peaceful mind ready to develop intelligence, 3) Intelligence is the development of intelligence, training to develop wisdom to create knowledge, thinking, and understanding to think, consider and solve problems with intelligence. having a happy heart, without suffering, wisdom is the real solution to problems by virtue of a solution to life problems to live with the family, a peaceful and sustainable society.

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The Cost Potential of Shallot in RasiSalaiDistrict,Sisaket Province

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ABSTRACT

This research aimed to study the cost potential of shallot in RasiSalai District, Sisaket Province in order to lead to planning on pricing, marketing, improving the quality of shallot and analyzing data of farmers and shallot production.The research findings on the general information of shallot farmers revealed that they consisted of 75% of males and 25% of females with 40-49 years of age or 50%. Most of their educational levels were 55% of primary level or lower. They grew shallot together with other crops.The Bang Chang varieties (local shallot varieties of Sisaket Province) were grown most of 75% and the other 25% of local northern verities called Hom Bua. The 70% of planting shallots were harvested from the last season and the other 30% were purchased from other farmers in the market. The shallot productivity per rai was uncertain depending on the caring, fertilizing and disturbing disease. Approximately 35% of the farmers harvested 1,200-1,500 kilograms per rai or 25%. Regarding the production cost of shallot, it was found that the average mount was 8,151.5 baht per rai with the highest amount of verities of3,250 baht per rai or 15.2%. The cost of insecticide was1,000 baht or 10.2% of the total cost. In addition, the least cost was transportation for 3.3% only because most merchants bought shallots at the farming sites. According to sale data, 70% of the farmers sold local verieties of Sisaket Province with average price of 30 baht per kilogram, followed by 15% of Hom Bua with an average price of 45 baht per kilogram. The average income earned by farmers in each household was different at 20,001-25,000 baht per rai.

Keywords:Production, Cost, Shallot

INTRODUCTION

Shallot is one of important economic crops, which can generate approximately 3,000 million baht per year income for farmers. The planting sites in the north arein Chiang Mai, Chiang Rai, Lamphun, Phayao, Uttaradit and Phetchabun. Furthermore, some of them in the northeast are in Sisaket and Buriram. The productivity of shallot is approximately 200,000 tons each year. Most of them are for domestic consumption about 85 percent and another15 percent areexported abroad. In the period of five years (2004 - 2008), the export volume and value are likely to decline in an average of 18.30 and 7.4 per year. In 2004, the export volume was 59,985 tons with the value of308.29 million baht, but later it reduced to

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21,943 tons with the value of 157.90 million baht. The major export markets are Malaysia, Indonesia and Singapore. The price of shallot is unstable because farmers define the amount of production each year based on prices in the past. It can be seen that the price of the product is quite low due to releasing to the market in the same period. Normally, the shallot in Sisaket Province will be released during January – February, while the shallots from Lamphun, Uttaradit, Chiang Mai, Chiang Rai, Phayao, Phetchabun and other provinces are gradually released to the market during February - March every year. These always results in price slump problem. In year 2006-2007, there was a price slump problem of the mixed dried shallot. In year 2007, the farmers' selling price droppedto 10.04 baht per kilogram comparing to price of22.09 per kilogram in year 2006. Then, the farmers asked for help from the government. Later, on February 8, 2007, the Farmers Assistance Policy and Measures Committeeapproved an interest-free working capital of 50 million baht to the Ministry of Interior to intervene to buy shallots in Sisaket Province. The buying volume and price were not more than 5,000 tons and 11.00 baht per kilogram based on the quality for sale. Then, on March 2, 2007, the Farmers Assistance Policy and Measures Committee approved an interest-free working capital of 75 million baht to the Ministry of Interior to allocate for the northern provinces: Lamphun, Uttaradit, Chiang Mai, Phayao, Phetchabun and Chiang Rai in order to intervene to buy mixed dried shallots at a price not more than 11.00 baht per kilogram based on quality for sale. The Ministry of Agriculture and Cooperatives has defined a policy for agricultural development focusing on solvingprice slump problem as an urgent policy for the concerned agencies to take proactive action by preparing an operating plan in advance for each product before the problem

occurs. Therefore, it is necessary to study the production management and shallot marketing to be able to set the production target to meet the market demand as a preparation for price slump problem that may occur in the future. According to that, itcan stabilize shallot price and helpfarmers to earnstable income. (Office of Agricultural Economic Research, 2009-2010). So, the entrepreneurs who start this business are essential to study and research information related to this includingconcerned factors, such as production, production method, capital and marketing of production in order to be successful and sustainable in this business. For this reason, the researcherswere interested in studying the characteristics of shallot production business for sale in the market focusing on analyzing the financial worth of investment. According to this study, people who are interested in investing in this business can use this guidelineto makedecision in investment of processing shallot product in the local or community.

According to the current market condition, the competition is likely to be more intense. It results in activities of every organization or business of small, medium and large-sized businesses in order to increase efficiency in competing with competitors which increase continually. Most of leveraging strategies of every business are in the forms of a production cost reduction in order to drop sale price to be cheap to meet customers' need. However, the main component of the producers is the lowest production cost along with quality and value control of the product to be accepted by customers. Therefore, production cost management is considered a very important strategy in order to reduce production cost and various expenditures. If theycan becontrolled and reduced,the selling price will be low and the profit will also be increased.

RESEARCH OBJECTIVES

1. To study the cost potential of shallot to lead to planning on pricing and marketing.

RESEARCH METHODOLOGY

1. The samples were shallot farmers in RasiSalai District, Sisaket Province and local buyers or collectors. The 20 samples of shallot farmers and 20 local shallot buyers or collectors were selected using accidental sampling method.

2. The instrument used in this research was interview form consisting of closed-ended and open-ended questions divided into 4 parts: (1) General information of interviewees, (2) Shallot production data, (3) Shallot production cost data and (4) Problem and obstacle including attitude, comment and suggestion.

3. Shallot production data, shallot production cost data, problem and obstacle, attitude, comment and suggestion were analyzed by descriptive statisticsconsisting of frequency, percentage, mean and standard deviation.

RESULTS

The data were collected by using two interview forms, onewas for shallot farmers and another one was for local collectors.

1. The data analysis result of shallot farmers and shallot production issues

Regarding the general information of shallot farmers, they were found that most of the shallot farmers consisted of 75% of males and 25% of females with 40-49 years of age or 50%. Most of their educational levels were 55% of primary level or lower. The main occupation was shallot farmer for 85% with experience of

growing shallot for 10 years or more for 45%. Most farmers grew shallot for 3-4 rai (or 4,800-6,400 square meters) of 40%. Most of the shallot was grown in for 50% and another 50% was grown in sandy loam with some space between each plant due to better ventilation and absorption of minerals and organic fertilizer. Moreover, it was able to reduce some salinity and chemical residue problems. The Bang Changvarieties (local shallot varieties ofSisaket Province) were grown most of 75% with 70% out of that amount was harvested from the last season and kept for 5-6 months. The 50% of farmers usually grew shallot in November and later harvested in March. However, the product volume per rai was uncertain depending on the caring method. (Bureau of Agricultural Economic Research,2010)

The average cost per rai of shallot production was 8,151.5 baht. The cost of varieties was the highest ratio of 2,908.6 baht per rai or 35.7 % of the total cost. The wages for removing weed and grass in the plot preparation were 1,424.1 baht or 17.5% including worker wages for ploughing for 1,028.8 baht per rai. In addition, theleast cost was transportation for 3.3% only because most merchants bought shallots at the farming sites or farmers sold them to the local collectors nearby.

Regarding the sale characteristic, Sisaket Provincevarieties were sold 30 baht per kilogram on average or 70%. After solar dried process, the average price of dried shallots were 45 baht per kilogram, which were sold to the merchants at farming sites. The averageincome earned by farmers in each household was 31.0% (average income 20,001-25,000 baht per rai). According to the interview, it was found that farmers did not have the power to define price, but it was defined by thebuyers. The famers always sold their shallots to regular collectors and also researched information for price from

other buyers for decisionmaking. All of shallots weresold as fresh tubers without any processing, as a result, the researchers could not find out processing and product characteristics of shallot in this area. Furthermore, farmers weresupported the use of shallot grinders by local government agencies. However, the shallot processing project was not yet started by the date the researchers surveyed.

Regarding the problems of farmers, they were found that price slump, processing productand the continuity of government assistance policies were not achieved. (OrrawanButhsoandSanit Kaoint,2006)

2. The data analysis result of local collectors and marketing issues: the data gained from 20 intervieweesrevealed as follows:

The20 local collectors or shallot buyers in Lan Khoi Sub-district consisted of 12 females and 8 males with 40-45 years of age. They purchased other agricultural crops, such as vegetables and fruits, etc. They bought shallots as a part of family business without hiring any employee.

Most of local collectors had been purchased shallots for over five years. Their invested tools and equipment consisted of pickup trucks, weighing machines and shallot housesto store shallots before selling. Besides, there were shallot containers and washing equipment as well.

Regarding the purchased shallots, 65% of them were non-trimming shallots and 35% of trimming shallots. The purchased price at the sites was cheaper than buying from the local collectors for 4-5 baht per kilogram depending on the cost of transportation. The local collectors defined price based on the expected selling price, purchased price of competitors and quality of the shallots. According to this, the local collectors bore for various marketing

cost, such as washing wages, water supply, electricity and equipment used to pack shallots. In addition, the washing of shallots lost 10% of weight at purchasing date. The collectors hired workers on a regular basis for washing shallots at a wage rate of 50 satang per kilogram. Therefore, they needed to have a working capital for monthly purchase between 50,000 - 70,000 baht depending on the volume of shallots and season. However, there was no loan from financial institutions for their investment. They bought shallots in the form of fresh tubers that had not been washed, then sprayed and washed off the soil.During short supply period, the collector had to purchase shallots at the site for 87%and bore for transportation cost.

Regarding marketing cost, profit of collector and the market share varied according to the characteristics of the shallots. The marketing cost of both trimming and non-trimming shallots were equal at1.7 baht, while the market cost of shallots was at1.67 baht. 95%of shallots grew by farmers were sold to local collectors and the remaining shallots of5%were kept for consumption and planting in the following season. The collectors sold 66% of purchased shallots at the central market ofSisaket Province. They sold shallots both inside and outside the area. The other 20%were sold to merchants in the Bangkok market and 5% were sold to local consumers in Sisaket Province.

CONCLUSION AND DISCUSSION

Regarding general conditionof shallot farmers, it was found that shallot farmers consisted of males and females in the similar proportion with 40-49 years of age on average. Most of their educational levels were primary level or lower. The main occupation was shallot farmer, farmer and orchardist, etc. They

had 5-6 people in the family with agricultural lands for 10-19 rai. Also, they had experience of growing shallot for 10 years or more.

Regarding shallot production, the conditions of shallot farmers in year 2016-2017 were found that most farmers grew shallot for 3-4 rai (or 4,800-6,400 square meters) more than 5 years. 80% of them grew shallot together with other crops. The source of Bang Chang varieties (local shallot varieties of Sisaket Province) belonged to shallot farmers. Most shallot farmers of 67% started planting shallot in November and harvested in March. In the caring of shallots, the farmers removed grass and applied chemical fertilizers twice during the period of 3-4 months. Thetraditional harvesting method was by manpower. The farmersgot 1,776 kilograms per rai on average and spent 8,152 baht per rai for cost (excluding the cost of own labor and family). The selling price was uncertain as the buyersdefined the price with bargaining power of the farmers. For that reason, the farmers earned average income of only 22,186 baht per rai. Besides, the farmers lack knowledge of soil improvement. So, they grew in the same area several times without any other crop rotation, which resulting in disturbing diseases due to the repeated planting of shallots.It caused plant disease accumulation, such as rhizome and root rot caused by bacteria, such as wilt and leaf spot disease.Regrading production problems and the need for assistance of shallots farmers, they were classified into 3 types. The first one was production problem, such as soil degradation and pest infestation. The second one was marketing problem, it was found slump price problem of falling prices and lack of processing, which was one of the most important problem. Moreover, policy or government support were inconsistent and lack of expert advice. Finally, the third one was the need for help of farmers by government to

provide personnel to advise on shallot planting continually.

In order to buy shallots, the buyers must invest tools and equipment consisted of pickup trucks, weighing machines and shallot houses to store shallots before selling. Besides, they needed to prepare baskets and hemp sacks to cover the baskets. Also, mesh sacks, water pump, hose and water sprinklers, baskets, containers, and working capital must be prepared around50,000-70,000 baht per month to paycash the for the farmerswhen buying shallots. The local collectors bought shallots from regular customers at85%were from planting sites with the average volume at 800-1,000 kilograms per day. Their purchasing shallot problem was in the moderate level. Some of the problems were low and uncertain product volume. Therefore, there should be some technology transfer related to product processing to help farmers to seek marketsin order to reduce the monopoly of local collectors.

SUGGESTION

(1) The government should educate farmers on shallot planting in all aspects, starting from selecting varieties, planting, taking care, fertilizing, preventing and eradicating of plant diseases.

(2) The promotion of soil maintenance should be provided to allow farmers to plant alternate crops with shallots to prevent plant diseases.

(3) The use of bio-fertilizers should be promoted to replace chemical fertilizers in order to reduce production cost.

(4) The farmers should be encouraged to tryto plant other shallot varieties, such as Homdaeng Thong varieties, which is able to get better market opportunities. Also, knowledge about shallots storage should be provided to

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local collectors in order to reduce the number ofspoilages during storage period.

(5) The government should support the integration of shallot farmersto create an efficient trading system as well as to provide market information for farmers to increase their bargaining power.

(6) The government should promote the seek for new markets of both domestic and international markets to support productivity. In addition, theprocessing of product should be promoted to add value and solve slump price problem.

(7) There should be an establishment ofshallot farmer group in order to increase their bargaining power with the middlemen or local collectors.

(8) The government should play a crucial role on seeking new markets by making agreements with big buyers in order to reduce the uncertainty from price fluctuation.

According to the marketing potential of shallot, it was found to be at a low level due to lack ofproduct variety. Furthermore, there was no added value to the product and most of the sale wasthrough a single channel by selling to the local collectors. As a result, the farmers had to accept a price defined by the local collectors which was considered a monopolycharacteristic.

SUGGESTION FOR FUTURE RESEARCH

(1) To study the guideline of shallot planting promotion to increase higher average productivity per rai than current volume.

(2) To study possibility of processing and developing shallot product.

(3) To study the market opportunities and marketing methods of shallot and its product.

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DIFFERENCES OF OPINION: THE DEBATE ON THAI THERAVĀDA BHIKKHUNĪS

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Abstract

This paper attempted to summarize the findings regarding the question about the acceptance of Theravāda bhikkhunīs in Thai society across different sections of the Thai population. The statistics approach to this research article and questionnaire sample is cross-sectional data from April 20 to May 12, 2017. Interviews and group discussions have also been utilized as a method to facilitate an open-conversation atmosphere to get our subjects speaking. Nevertheless, since the questionnaire method is anonymous, our subjects feel more at ease to express their opinions regarding the Theravāda bhikkhunī ordination debate in Thailand. Thus, it is hoped that this paper provide a better comprehension of how the Thai people perceive the role of Theravāda bhikkhunī in Thai Buddhist culture and the possibilities for their recognition in the future. Moreover, it is hoped that this research will reveal how the Thai Theravāda bhikkhunīs perceive themselves in their role inside the fourfold assembly consisting of bhikkhus, bhikkhunīs, lay men, and lay women in propagating the Gotama Buddha's teachings.

KEYWORDS: BHIKKHUNĪ, SĀMANERĪ, MAE-CHI, CHI-PHRAM, SINGLE ORDINATION, DUAL ORDINATION

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1. Introduction

In Thailand, the controversy of instating the Theravāda Bhikkhunī Order in Thailand is a huge issue among Thai Saṅgha and society. The ordination of Chatsumarn Kabilsingh as a sāmaṇerī in 2001 CE was a hot-hit issue in the newspapers. It became a heavily debated issue that did not stop until a member of Thaksin's cabinet, Mr. Wissanu Kreu-ngam (วิษณุ เครืองาม) stepped out to defend Theravāda bhikkhunī ordination as neither right nor wrong as defined by Thai constitution laws. Currently in Thailand, there are around 300 Theravāda bhikkhunīs (0.00042% of the Thai population). Female candidates for Theravāda bhikkhunī ordination still have to seek upasampadā ordination outside Thailand due to the non-acceptance of Theravāda bhikkhunī status under the Thai law and by the Thai Saṅgha. Thus, in this research article, I will examine the controversy concerning the establishment of the Theravāda Bhikkhunī Order in Thailand. I will analyze the reasons given from each side of the dispute either for or against within the internal structure of the Thai debate. I will also study the differences between the attitudes of Thai males and females on the subject.

2. Methodology of the Research

The approach to this research article I have conducted is both qualitative and quantitative. My data collection included both primary sources such as interviews, questionnaires, and participant observation. For secondary sources, information from popular and academic books, and journal articles has been used.

Questionnaire (primary source): Questionnaire sample has been collected from 80 bachelor degree students (including monks and novices) at the College of Religious Studies, Mahidol University (m=38, f=42) concerning their opinions on the instating of the Bhikkhunī Order in Thailand. Another set of questionnaires has also been collected from 39 blue-collar factory workers (m=13, f=26) from Siam Pokaphan Company to get their opinions and also test their knowledge about Theravāda Bhikkhunī Order in Thailand. After the procedure was completed, the Microsoft Excel program has been used to analyze the data.

Interview (primary source): Interviews have been conducted with two bhikkhunīs, one sāmaṇerī, and one female practising lawyer at Songdhammakalyani Monastery. Interviews have also been conducted with two female monastics at Rom Rune Green Park village.

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Moreover, qualitative information from the lay people (m=2, f=6) who give alms to these female monastics from Wat Songdhammakalyani and at Rom Rune Green Park village has been gathered through interviews. I interviewed three mae–chis from Wat Paknam Phasi Charoen and two mae-chis from Wat Mahadhat. Moreover, scholars from Thammasart University (three male professors) and from Mahachulalongkornrajavidyalaya University (one mae–chi scholar, and one monk scholar) were also interviewed. Out of these three male professors from Thammasat University, I have targeted one with legal questions to determine the influence of the Thai constitution and international laws have on the decision of females to ordain as a bhikkhunī in Thailand. These legal questions were aimed at determining the possibilities for the Thai Saṅgha to grant the legal recognition of Thai Theravāda bhikkhunīs. Futhermore, I have conducted interviews with one monk from Wat Mahadhat and one monk from Wat Paknam. An interview with one monk who used to belong to the Saṅgha Supreme Council of Thailand between the years 1992 to 2001 CE from Wat Ratcha Orasaram was carried out. Additionally, I have interviewed one monk from Wat Suthat Thepwararam. Overall, my interview sample size consists of four bhikkhunīs, one sāmaṇerī, six-mae-chis, five monks, three male professors, one female practising lawyer, and eight villagers [m=2, f=6]. A voice recorder has been used to collect data, but these people may choose to remain anonymous. Written interviews through e–mail would be used at the last resort if the interview subject preferred to use this method in answering questions.

Participant Observation (primary source): I have spent ten days at Songdhammakalyani Monastery as a volunteer to observe the bhikkhunīs' and sāmaṇerīs' lifestyle, deportment, ritual practice, and their strictness in following the Vinaya by travelling from home back and forth. As a volunteer, I have participated in the monastery's ritual activities. I also had the chance to help with the temple chores, such as offering assistance to the bhikkhunīs and sāmaṇerīs on their alms–round.   In this process, I have observed the interactions between the laity and bhikkhunīs and sāmaṇerīs.

3. Keywords:

Bhikkhunī – Pali term for female monk in Buddhism, who follows 311 precepts in the Theravāda tradition and 348 precepts in

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Dharmaguptaka tradition, and has received higher (upasamapdā) ordination.

Sāmaṇerī – Pali term for female novice in Buddhism, who follows the 10 precepts and has received lower ordination.

Mae-chi – A term for women who undertake the 8 precepts, practice Buddhism and meditation, wear white robes, shave their heads and brows, and lived in either nunneries (samnak-chis) or in a segregated place in temples away from monks.

Chi-phram – A term for women who take the 8 precepts and wear white clothes similarly to mae-chis, but are only temporarily ordained and do not shave their heads and brows. They lived in a separate quarter from the monks, but usually help the mae-chis with the temple chores, such as cooking.

Single Ordination – The Buddha's original authorization for bhikkhus to ordain bhikkhunīs when the community of bhikkhunīs had not yet come into existence. There are 24 sexual questions that the female candidate must answer fully about herself in order to pass and be qualified for the ordination.

Dual Ordination – A type of ordination procedure authorized by the Buddha in which the female candidate seeks higher ordination from both bhikkhunī and bhikkhu communities. The Buddha invented this method when there is one bhikkhunī who got very embarrassed when interrogated by assembly of bhikkhu with 24 sexual questions. In peripheral areas where Saṅgha members are hard to find, the candidate seeking higher ordination must be ordained by a minimum of 5 bhikkhunīs and 5 bhikkhus. However, in locations that are near a monastic community, and therefore more convenient, the usual norm of performing dual ordination consists of 10 bhikkhunīs and 10 bhikkhus.

4.1 Bhikkhunīs, sāmaṇerī and monks

From my interviews with bhikkhunīs and monks, the majority of their opinions contradict each other sharply. The "status" of Theravāda bhikkhunīs and sāmaṇerīs is not acceptable in Thailand yet, unlike mae-chis and chi-phrams. In Thailand, Theravāda bhikkhunīs are only regarded as female monks by some. Additionally, Thai monks tend to argue that Theravāda Buddhism follows the Vinaya strictly, in which the ordination of Theravāda bhikkhunīs is now invalid. Furthermore, these monks usually ordain as part of the Thai tradition to bring merit to their

parents and also for educational opportunities to study from primary level education and above (S.J. Tambiah 1980: 98-99). In Thai culture, it is respectful that young men followed the traditional norms of ordaining as a monk to repay the debt they incurred from their parents for their upbringing. Moreover, the upasampadā ordination ceremony in the Thai culture is perceived as a rite of passage marking the transition from boy to adulthood and as a form of paying respect to their ancestors (S.J. Tambiah 1980: 97, 101).

Nevertheless, Theravāda bhikkhunīs argue that the single ordination method was never abolished from the Vinaya and, thus, the revival of the bhikkhunī ordination lineage could be accomplished (Anālayo 2013: 327). Found in the Pali text and according to Bhikkhunī Dhammavijjā (ธัมมวิชา), the Buddha said that "small rules could be amended" before his parinibbāna. I will give an example of a small rule that is no longer used today. For example, it is now impossible for monastics to avoid touching money, as it is no longer applicable in Thai modern society. Likewise, some monks argue that single ordination procedure could still be valid as "small rules could be amended." However, most of the Thai Theravāda monks disagreed

on this issue, and come up with the argument concerning verification of "what is minor" and "what is major" (Duan Kamdee 2001: 259). The primary motivation of the majority of Thai females who chose to ordain as a Theravāda bhikkhunī is to escape from sufferings in samsara. According to Sāmaṇerī Dhammaparipuṇṇā (ธัมมปริปุณฌา), who has a PhD, the question should be posed to the Thai monks that if females can attain enlightenment in their lay state, then why should males receive their upasampadā ordination as a bhikkhu, since they can attain enlightenment in their lay state as well? According to the majority of the monks, dual ordination is the only correct method in the present day to ordain bhikkhunīs.

According to Phra Sunthorn Ñāṇsundaro (สุนทร ญาณสุนฺทโร), one of my informants, who is also a highly ranked and respected elder monk, believes that even if the Thai King Rama III wanted his daughter to be ordained as a sāmaṇerī, this could not be accomplished because it went against the Vinaya. Even if the King Rama III was the highest political authority figure in Thailand at his time, his power was limited when compared to the Buddha's Vinaya. Found in

the Pali text, and according to Phra Mahā Sawai Dhīrasobhaṇo (ไสว ธีรโสภโณ), a Vipassana meditation teacher at Wat Mahadhat, the Buddha foresaw that if the ordination of bhikkhunīs was permitted, it would result in the reduction of the time-span of the Buddhist religion. Nevertheless, Phra Mahā Sawai Dhīrasobhaṇo is the only monk in my sample who is pro-bhikkhunī ordination, to which he argues that Thai females wanted more acceptance by society by ordaining as a sāmaṇerī or as a bhikkhunī rather than becoming a mae-chi. Phra Mahā Somboon (สมบูรณ์ วุฑฺฒิกโร) is the only monk who is neutral, whereas the rest of the monks from my interview sample are opposed to Theravāda bhikkhunī ordination in Thailand.

Bhikkhunī Dhammavaṇṇā (ธัมมวัณฌา), and Sāmaṇerī Dhammaparipuṇṇā, seem to state that female laity feel much more comfortable and at ease with bhikkhunīs and sāmaṇerīs, since they are able to get closer to each other due to their common gender. The female ordained monastics (Bhikkhunī Dhammavaṇṇā, Bhikkhunī Dhammakaruṇā ธัมมกรุฌา, and Sāmaṇerī Dhammaparipuṇṇā) argue that it was the Buddha's intention in the

first place for there to be a fourfold assembly consisting of bhikkhus, bhikkhunīs, sāmaṇeras, and sāmaṇerīs to help propagate his teachings. Moreover, the majority of the ordained female monastics in my interview sample believe that both men and women have equal potential to achieve enlightenment as a sotāpanna, sakadāgāmi, anāgāmi, and as an arahant. According to Bhikkhunī Dhammavijjā, it might be possible for the King Rama X to pass a report approving Theravāda bhikkhunī ordination in Thailand during his reign, because the new Thai Saṅgha Act 2018 CE conferred the sole governing power of the Thai Saṅgha on the Thai King. Nevertheless, Phra Mahā Wirat's opinion contradicts sharply with that of Bhikkhunī Dhammavijjā; he says that it is very unlikely for there to be a review of the 11th Supreme Patriarch's command in the year 1928 CE (พ.ศ. 2471) forbidding the ordination of Thai females as sāmaṇerīs, sikkhamānās, and bhikkhunīs. Moreover, Phra Sunthorn Ñāṇsundaro suggests a solution for these Thai female ordained monastics to retain their status as only a mae-chi or to go receive upasampadā ordination outside the country. This is due to the fact that the Thai Saṅgha perceives that the lineage of Theravāda bhikkhunīs has already

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gone extinct (Peter Koret 2012: 131). Dual ordination is therefore the only correct method to conduct upasampadā ordination in the Thai Saṅgha's view, and that the Thai bhikkhus still must obey the command of the 11th Thai Supreme Patriarch forbidding the ordination of Thai females by Thai monks (Dhammanandā 2010: 151) .

4.2 Bhikkhunīs, sāmaṇerī and mae-chis

From my interview sample, bhikkhunīs come from a more elite class, have higher education than mae-chis, are more independent, and they do not want to be servants to monks. In contrast, mae-chis tend to come from a lower class, have lower education, and help monks with their daily chores. There are many reasons that Thai females chose to become a mae-chi. The main primary reason given by half of the mae-chis in my sample is for educational opportunities. However, I argue that becoming a mae-chi can also be for the means of subsistence (livelihood) as well. Moreover, these mae-chis seem not to mind doing chores for the monks and are rather happy with their routine tasks. (One exception is mae-chi Nahathai, who said

that she does not have that much time because she has to teach). Nevertheless, there is a prejudice in Thailand, commonly held by the Thai laity, that women who ordain as a mae-chi are perceived as "heart-broken" females seeking an asylum in Buddhist sanctuary (Monica Lindberg Falk 2000: 64). According to both Mae-chi Kritsana and Mae-chi Nahathai, the bhikkhunīs' robes are considered merely a type of ordained monastic uniforms. Thus, wearing the bhikkhunī's robes is pointless if the female ordained monastic cannot get rid of her kilesa. According to Mae-chi Boonrueng, if wearing the bhikkhunī's robes is for gaining honor, prestige and respect from the Thai laity for them to "krap" (กราบ) and "wai" (ไหว้) the bhikkhunīs, then this should not be the real motive for their ordination. Therefore, the real motive for upasampadā ordination should be to practice dhamma. Thus, Mae-chi Nahathai concludes that this is why she believes the status of bhikkhunīs and mae-chis are equal.

According to Sāmaṇerī Dhammaparipuṇṇā and Bhikkhunī Dhammakaruṇā, Thai society is much more accustomed to seeing and making merit with mae-chis rather than with bhikkhunīs and sāmaṇerīs. Nevertheless, Bhikkhunī

Dhammavijjā argues that these three groups of Thai females in Buddhism are all oppressed in Thai society. Thus, Bhikkhunī Dhammadatā (ธัมมทัตตา) argues that their status is the same because of the discrimination. This sharply contradicts with Bhikkhunī Dhammavaṇṇā's opinion who argues very strongly that mae-chis have no status in Thai society because they are not considered "ordained." Moreover, the majority of these female ordained monastics (bhikkhunīs and one sāmaṇerī) from my interview sample seem to believe that mae-chis are only considered as upāsikās, and not as a pabbajita (บรรพชิต).

4.3 Mae-chis and monks

Most of the men in the rural areas tend to ordain for educational opportunities to study from primary level and above (S.J. Tambiah 1980: 97-99). This is the same case for females who chose to ordain as a mae-chi which is also for educational opportunities (Janet Gyatso 2010: 9). However, some of them ordained as a monk or chose to become a mae-chi for means of subsistence as well (Swearer 1995: 47, and Muecke 2004: 224).

Most of the Thai monks and mae-chis do not support Theravāda bhikkhunī ordination in Thailand. The majority of them think that it is already sufficient enough for females to become a mae-chi. However, there is one mae-chi, Juntai, who would like to ordain as a bhikkhunī if it will help raise her status and pāramī to a more advanced level. Phra Mahā Tongdi (พระมหาทองดี), who used to belong to the Thai Saṅgha Supreme Council, has the strongest reaction against Theravāda bhikkhunī ordination in Thailand. He argues that if we wanted to re-establish the Theravāda bhikkhunī ordination lineage again, then the Tipiṭaka would have to be torn out. He elaborates further that if Theravāda bhikkhunī ordination were permitted in Thailand, disastrous consequences would occur, resulting in the end of Thai Buddhism. The majority of the mae-chis I interviewed are ambivalent concerning the issue of Theravāda bhikkhunī ordination in Thailand when compared to the Thai monks. Most of the monks seem to show their strong resistance outright (Tongdi, Wirat วิรัตน์, Sunthorn). Nevertheless, there are two mae-chis (Nahathai, Kristina) who are clearly opposed to Theravāda bhikkhunī ordination in

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Thailand. Mae-chi Boonrueng, and mae-chi Mupin are satisfied with their status and see no need for Thai females to ordain as a bhikkhunī.

4.4 Professor, practising lawyer and Mahidol BA students from College of Religious Studies

For my research, I interviewed one practising lawyer, Dr. Kanjana Suthikul and one professor "Dr. Montree," asking legal questions. Dr. Kanjana is strongly pro-bhikkhunī ordination in Thailand, whereas Dr. Montree is against Theravāda bhikkhunī ordination. Dr. Kanjana Suthikul works as a lawyer for Bhikkhunī Dhammanandā, although she never studied in any fields of law. Bhikkhunī Dhammanandā is the first Theravāda bhikkhunī in Thailand who ordained from the Siyam nikāya tradition in Sri Lanka. According to Dr. Kanjana, she believes that the majority of Thai monks are trying to monopolize power, by not accepting the validity of Theravāda bhikkhunī ordinations in Thailand, and also by not permitting the other organizations to touch them. I find her answer similar to only two of the female ordained monastics (sāmaṇerī and bhikkhunī) who agreed that the Thai Saṅgha is

trying to monopolize power. The rest of my interviewees did not dare to criticize the Thai Saṅgha in this direct manner. Nevertheless, Phra Mahā Tongdi who used to belong to the Thai Saṅgha Supreme Council replied very directly that the Thai Saṅgha Supreme Council is trying to monopolize power by not accepting the legitimacy of Thai Theravāda bhikkhunīs although he did not explain his reasoning to me why.

From looking at the questionnaires completed by the CRS students in April 2017, when the students are asked whether the Thai monks are trying to monopolize power or not, 43.75% (35) of them answered "I'm neutral," 26.25% (21) answered "I agree," and only 12.5% (10) answered "I agree very much." I think that since the questionnaire is anonymous, the students are much more out-spoken about their feelings concerning the Thai Saṅgha, as compared to the in-person interview. This differs from that of the factory workers, for whom 20.51% (8) answered "I'm neutral," 2.56% (1) answered "I agree," 5.13% (2) answered "I agree very much," and 53.85% (21) of them answered "I don't know." The Thai factory workers will just follow the decision that is made because they neither care nor give much thought concerning the issues

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of the Thai Saṅgha, which is why the majority of them answered "I don't know" and "I'm neutral."

According to Dr. Montree, the Thai Saṅgha must follow the rules in the Tipiṭaka strictly because the Thai monks are Theravāda Buddhists. Therefore, the dual ordination method is the only ordination method that is currently acceptable in Theravāda Buddhism. Nevertheless, since the lineage of Theravāda bhikkhunī has already become extinct, thus, the Theravāda bhikkhunī ordination lineage is considered as non-revival (Peter Koret 2012: 130-131).

According to Dr. Kanjana, the Thai Saṅgha Act and the command of the 11th Thai Supreme Patriarch violates the Thai constitution, which gives equal rights to males and females to partake in any religious activities that they have faith in as long as it does not violate the other citizens' rights. Furthermore, Dr. Kanjana adds that the order from the Thai Saṅgha Supreme Council forbidding the ordination of Theravāda bhikkhunīs in Thailand is also discrimination against Thai females according to the laws in the Thai constitution. Dr. Montree argues that even though the Thai constitution is considered as the highest law in Thailand, in reality, it has no power to govern over the Thai monks. Although the law in the Thai constitution gives rights to the Thai citizens to have faith in any doctrines they wanted, it lacks specific details about Buddhism as a distinct doctrine. In reality, Thai females should have the freedom to participate in any ritual and believe in any religious sect they wanted as long as it does not violate the human rights principle of equality in the Thai constitution. At the same time, those that shared the majority religious views (Thai bhikkhus) should neither discriminate against nor condemn minority religious views (Thai Theravāda bhikkhunīs). Nevertheless, the Thai monks must follow the law from the Thai Saṅgha Act, which is a system of governance designed to govern the Thai Saṅgha (Kanjana Suthikul 2017: 7).

According to Dr. Kanjana, the Thai Saṅgha Act is viewed as unfair because it does not accept Thai Theravāda bhikkhunīs as ordained monastics. According to her, the Thai Saṅgha Act not only violates the Thai constitution, it also goes against the Vinaya. Thus, females are not given the rights to ordain that they should have. According to Dr. Kanjana, the Buddha never said that females cannot ordain in his Vinaya. Thus, what the

Thai Saṅgha Supreme Council did by forbidding the ordination of Thai females as a Theravāda bhikkhunī is considered "wrong." Moreover, it was a violation of the human rights principle when Thai Theravāda bhikkhunīs were refused entry into the Grand Palace to pay respect to the decreased King Rama IX in 2016. This is because the Thai Theravāda bhikkhunīs were not only entering the Grand Palace with their status as a "bhikkhunīs," but also as of Thai citizens.

Thus, what the Thai Saṅgha did is a violation of both the Thai constitution and Thailand's international obligations. It goes against the human rights principle according to its international treaties. Nevertheless, I am able to see improvements and amendments in the law, by which Thai Theravāda bhikkhunīs are now able to enter the Grand Palace to pay respect to the decreased King Rama IX. On the contrary, at this time, Thailand holds UN membership (and subscribes to many other conventions) only in name, since her deportment does not conform to the international obligations that the state promises. Thus, Thailand has been severely criticized by other nations. Therefore, Dr. Kanjana concludes that in the next 50 to 100 years, new Thai generations will be able to

see that what these groups of Thai monks did (monopolization) was incorrect.

4.5 CRS students and professors

According to my interviews with two professors, Dr. Daeshowpon favors Theravāda bhikkhunī ordination in Thailand, whereas Dr. Watchara is opposed. According to Dr. Watchara, he thinks that the Thai bhikkhunīs who wanted to be accepted as "Theravāda" should re-name themselves as bhikkhunīs from the other Theravāda nikāyas or ordain from a Mahāyāna lineage. This is because the "old type" of ordination according to the Vinaya, such as dual ordination, can no longer be accomplished due to the disappearance of the Theravāda bhikkhunī lineage. Therefore, Dr. Watchara suggests a solution that we should ordain these bhikkhunīs and sāmaṇerīs, but accept them as a "new type," since the revival of Theravāda bhikkhunīs and sāmaṇerīs is no longer possible. Dr. Watchara believes that if the "new type" of bhikkhunī and sāmaṇerī ordination is permitted in Thailand, it will be beneficial for Thai Buddhism and society. However, Dr. Daeshowpon supports Theravāda bhikkhunī and sāmaṇerī ordination in Thailand. His opinion contradicts Dr. Watchara, in that he believes that there must be a method to revive the extinct Theravāda

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bhikkhunī ordination lineage so that Thai females can be ordained as a "Theravāda bhikkhunī" and be legally accepted as such. Thus, according to my opinion, Dr. Daeshowpon is suggesting that there is no need to rename these Thai Theravāda bhikkhunīs as a "new type," because the lineage could be re-instated if there is no interference with the rules in the Vinaya.

Nevertheless, conservative Thai professors and monks agreed with the Vinaya and the Tipiṭaka that dual ordination is the only correct ordination procedure in the present day. This is due to the fact that the Theravāda bhikkhunī ordination lineage was never introduced into Thailand (Hendrix, and Okeja: 2018: 144). However, Dr. Kanjana, a practising lawyer, prefers to think in terms of gender equality, equal human and feminist rights according to the Thai constitution in fighting for the validity of Thai Theravāda bhikkhunī ordination.

According to my questionnaires, when the CRS students are asked to list some of the topics discussed in their classroom about bhikkhunīs, the majority of the female CRS students tend to be more focused on the issue of bhikkhunīs' acceptances in Thailand than the male CRS students (f=10, m=3). In contrast, the majority of male CRS students tend to list the issue of the bhikkhunīs' non-acceptances in Thailand more often than the female students (f=5, m=7). From the questionnaires, 16.25% (13) of male and female CRS students answered "I agree very much," for there to be a bhikkhunī ordination in Thailand, 45% (36) of them answered "I agree," and 35% (28) of them answered, "I am neutral." 2.5% (2) of them answered "I disagree," for there to be bhikkhunī ordination in Thailand, and only 1 person =1.25% answered "I disagree very much."

Of all the Thai male Buddhist professors I interviewed, all of them have been ordained as a bhikkhu before. Of all the Thai male CRS students from my sample, the majority of them have been ordained= 63.16% (24 persons). Of all the 63.16% of them that have been ordained, 50% (12 persons) of them are currently monks or sāmaṇeras. Out of the 63.16% of Thai male CRS students that have been ordained, 66.67% (16 persons) of them said that their reason for studying at CRS, Mahidol is because they are interested in the religious field. Thus, I find some correlation that Thai male professors who teach in the religious field and Thai male students who say that the primary reason they go to the College

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of Religious studies, Mahidol is because of their interest in religions tend to have some experiences ordaining in the monkhood.

4.6 CRS students and factory workers

According to my data analysis from the questionnaire sample, CRS students are more highly educated than the factory workers. Some of them also come from a higher social class. Therefore, their interest level and their support of Thai Theravāda bhikkhunīs ordination are also much higher than that of factory workers. From my data analysis, male students who said that their primary reason for studying at CRS, Mahidol is because they are interested in the religious field are 5.22% more interested in the issue of Theravāda bhikkhunīs than the average of all the male CRS students in the sample.

When the female CRS students were questioned, what would they ordained as if they were given a chance to ordain, 2.38% (1 person) said that she would like to ordain as a bhikkhunī, 2.38% (1 person) said that she would like to ordain as a sāmaṇerī, 11.9% (5 persons) said that they would like to become a mae-chi, whereas the majority 54.76% (23 persons) said that they would like to become a chi-phram. I also find that there is no significant difference between the interest

level and opinions level in support of bhikkhunīs between CRS female and male students. This is similar to the case of female and male factory workers, in which there is not so much difference between them. Therefore, I conclude that gender does not play a major role in determining the differences in the interest level and opinions level in supportive of bhikkhunīs.

When I asked the CRS students and factory workers whether there should be bhikkhunī ordination in Thailand, CRS students of both genders showed overwhelming support, in which the majority =45% (36) answered that they "agree," and 16.25% (13) answered that they "agree very much." Total = 61.25%. However, when I put the same question to factory workers of both genders, the majority of them =51.28% (20) answered "I don't know." The second highest choice among the factory workers is neutral =28.21% (11). Thus, I find that CRS, Mahidol students are more pro-bhikkhunī ordination than factory workers. However, there are also some students who believe that the lineage of Theravāda bhikkhunī ordination cannot be revived= 21.25% (17)--> "17.5% (14) agree" + "3.75% (3) agree very much," and that if females are accepted into the Saṅgha, sexual

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misconduct will occur = 46.25% (37) ->"37.5% (30) agree" + "8.75% (7) agree very much." Furthermore, some of the CRS students believe that becoming a mae-chi or chi-phram is already sufficient enough for Thai females = 18.75% (15) -> "17.5% (14) agree" + "1.25% (1) agree very much." From looking at the statistics, I conclude that the CRS students can show more of their support to make the future of Thai Theravāda bhikkhunīs promising. Nevertheless, I cannot say the opposite that Thai factory workers are against bhikkhunī ordination due to the Thai factory workers' lack of information and knowledge concerning bhikkhunīs. This is also because the Thai factory workers are not saying directly that they are against Thai Theravāda bhikkhunī ordination in Thailand, so therefore I cannot represent their view.

According to the questionnaire question, when the CRS students of both genders are asked whether ordination should be given to females as a Theravāda bhikkhunī and as a sāmaṇerī so that they have the same opportunity to study dhamma as deeply as bhikkhus, the majority of them answered "I agree"-> 42.5% (34 students). The second highest choice among the CRS students of both genders answered "I agree very much"-->

23.75% (19 students). Total = 66.25% (53). Thus, education plays an important factor in determining the interest level and opinions supportive of bhikkhunīs of the CRS students compared to the factory workers (males and females combined) in which 51.28% (20) of them answered "I don't know." The second highest choice among them is 15.38% (6), in which they answered "I am neutral."

4.7 Villagers and factory workers

Factory workers from Siam Pokaphan Company in Nakornpathom Province generally have no idea what a Theravāda bhikkhunī is, because the majority of them never heard of the term "bhikkhunī" before 64.1% (25), have never read news about bhikkhunīs 79.49% (31), never met a bhikkhunī in person and never made merit with one 92.31% (36). This is because the number of Theravāda bhikkhunīs is only approximately 300, which is considered as very minimal in Thailand. Furthermore, factory workers are not interested in religious issues, in which they only follow the mainstream traditional religious teachings. However, the villagers around Wat Songdhammakalyani are familiar with Bhikkhunī Dhammanandā (ธัมมนันทา) and her

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fellow bhikkhunī disciples. This is because the villagers often meet Bhikkhunī Dhammanandā's disciples, comprising bhikkhunīs and sāmaṇerīs on their alms-round in the morning. On the factory workers' questionnaires completed in May 2017, when asked about whether offering to monks earns more merit than offering to bhikkhunīs, 61.54% (24) of them replied that they do not know. This sharply contrasts with the opinions of the villagers around Wat Songdhammakalyani (4) and also villagers at Pathum Thani (4), in which they believe that offering to both bhikkhunīs and monks brings the same amount of merit.

The majority of the Pathum Thani villagers in my interview sample respond that the state of the mind when giving the donation to the receiver determines the amount of merit one gets. Thus, they believe that there is no difference between giving to female or male ordained monastics. Nevertheless, there is one female villager from Pathum Thani province who says giving to bhikkhunīs brings more merit than giving to mae-chis because of their higher number of precepts. Another female villager from Pathum Thani province says she is more delighted when giving alms to the two bhikkhunīs (Dhammadatā and Dhammavijjā)

because she is able to understand the Thai blessings (not Pali) that were given in return. Since the number of Theravāda bhikkhunīs in Thailand is very small (approximately 300), almost all of the factory workers never had a chance to meet and make merit with one. Therefore, they do not know what a bhikkhunī is.

Although the villagers around Wat Songdhammakalyani who give alms to bhikkhunīs come from a lower class like the factory workers, they are familiar with bhikkhunīs and know who Bhikkhunī Dhammanandā is. One interesting finding involved a male villager (Tawisak) from Pathum Thani province who likes to read history books and who is also the father of Bhikkhunī Dhammadatā. Tawisak has studied the history of Narin Phasit in depth. Narin Phasit was the first person in Thai history to initiate the bhikkhunī and sāmaṇerī ordination in Thailand (Peter Koret: 2012: 111). Therefore, he may be considered the first Thai feminist to fight for the Thai bhikkhunī ordination. Tawisak explains that it was the ordination of Narin Phasit's two daughters that made the 11th Thai Supreme Patriarch issue command forbidding the ordination of Thai females as Theravāda sāmaṇerīs, sikkhamānās,

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or bhikkhunīs. He adds further that because it was the command of the 11th Supreme Patriarch, no one dared to violate it.

4.8 Factory workers, mae-chis and monks

On the questionnaires, when asked whether ordination as a chi-phram and as a mae-chi is sufficient for Thai females, 33.33% (13) of factory workers replied "I agree" and 2.56% (1) replied "I agree very much." This is similar to four of the monks' opinions (Sunthorn, Wirat, Somboon, Tongdi) and two of the mae-chis' opinions (Kritsana, Nahathai). Since Phra Sunthorn Ñāṇsundaro, Phra Mahā Wirat Abhiratano, Phra Mahā Somboon Vuḍḍhikaro and Phra Mahā Tongdi Suratejo came from rural areas in Thailand, I hypothesize that they will tend to stick to the norm of mainstream Buddhist tradition in which females are usually ordain as only a mae-chi or a chi-phram. They are not accustomed to seeing females ordain as a bhikkhunī or a sāmaṇerī. This hypothesis is supported by a questionnaire question in which I asked the female factory workers what they would like to ordain as if given a chance. 26.92% (7) would like to become a mae-chi, and 34.62% (9) of them would like to become a chi-phram. Therefore, I hypothesize that the goal of ordaining as a bhikkhunī or as a

sāmaṇerī seems too high-ended for the female factory workers; they think it could not be accomplished. Thus, I hypothesize further that most of the male factory workers ordained as a Theravāda monk simply because they were following the traditional Buddhist norms in Thai culture for a short duration, and they do not know much about Thai Theravāda bhikkhunīs or their own monkhood in-depth.

4.9 Conclusion:

According to the beliefs of Thai Theravāda bhikkhunīs and the sāmaṇerī in my interview sample, most of them believe that both males and females have the same ability to attain enlightenment. This is because enlightenment is not conditioned by gender. Moreover, the majority of them (Dhammavaṇṇā, Dhammavijjā, Dhammakaruṇā) believe that the Buddha foresaw that bhikkhunīs will help propagate his Buddhist dhamma teachings since one of the groups that belonged to his fourfold assembly consisted of bhikkhunīs. According to Phra Mahā Tongdi Suratejo, the state of a normal female lay person cannot absorb all the power of the merit after she has attained the status of an "arahant" because a lay person only has five precepts. Thus, her body will disintegrate. In order to prevent this from

happening, she must be ordained as a bhikkhunī within 7 days after attaining enlightenment. However, according to Phra Mahā Tongdi Suratejo, this is easier to say than to do, because there is no Buddha in the present day to preach to anybody for them to gain enlightenment. According to Bhikkhunī Dhammavijjā and Bhikkhunī Dhammavaṇṇā, mae-chis are more oppressed in Thai society when compared to bhikkhunīs and sāmaṇerīs because they must serve monks with their routine chores. Therefore, this is considered as unfair and is a form of gender discrimination.

Although the Buddha came up with the dual ordination method in the Vinaya, the old single ordination method was never abolished (Anālayo 2013: 327). Thus, I believe it is possible for the Theravāda bhikkhunī ordination lineage to be revived. Furthermore, the Buddha intended for there to be a fourfold assembly which included bhikkhunīs to help spread his teachings (Dhammananda 2010: 157). The Buddha did come up with the command before his parinibbāna that the small rules in the Tipiṭaka could be amended later onwards (P.A. Payutto 2011: 255). For example, there is a rule that forbidden monastics from touching money, which is no longer possible for monks to

follow in the present day. Thus, the rules in the Vinaya which some people interpreted as meaning that the dual ordination method is the only correct way should be amended, so that Theravāda bhikkhunī ordination could be revived.

Some of the mae-chis and bhikkhunīs I have interviewed mentioned a stigma in Thai society, that those who decided to ordain as a mae-chi are heartbroken females seeking a safe haven in Buddhism. However, not all of them agreed with this view and think highly of their own status as a female renunciate. However, the position of mae-chi is ambiguous in Thai society where there are perceived as only upāsikās and not as female ordained monastics (Duan Kamdee 2001: 232). Nevertheless, most of the reasons that Theravāda bhikkhunīs gave for their upasampadā ordination seem much more sophisticated to me. Significantly, contrary to the mainstream stereotypes, females candidates decided to become a bhikkhunī because they wanted to escape from the "endless cycle of death and rebirth." However, many females' motives for ordination originated not only from purely Buddhist motives, but also to break the Thai stereotype, traditional culture, and established norms of

females as sexual objects (Charles F. Keyes 1984: 234 – 235). This may be due to the rise in education level over the years, in which females preferred to ordain as a Theravāda bhikkhunī instead of a mae-chi, in order to become more independent. Thus, I find that while mae-chis tend to be ambivalent toward Theravāda bhikkhunī ordinations, the majority of the monks are outright against Thai Theravāda bhikkhunīs.

Since the Thai monks are Theravāda Buddhists, they argued that they must follow the rules and teachings of the Tipiṭaka strictly (Peter Koret: 2012: 131). According to their argument, this is because Theravāda Buddhism is the strictest form of Buddhism. They followed the command of the 11th Thai Supreme Patriarch, in the year 1928 CE. (พ.ศ. 2471) forbidding the ordinations of Thai females as a sāmaṇerī, sikkhamānā, or bhikkhunī. Nevetheless, one of the bhikkhunī (Dhammavijjā) argues that the reason this command has not been abolished yet is because the new Thai Supreme Patriarch does not dare to defy the command of the older one, like a student who is obedient to his ajarn. According to Bhikkhunī Dhammavaṇṇā, the 11th Thai Supreme Patriarch's command violates the current Thai constitution laws. In reality, his command in 1928 CE should have already expired due to the laws in the Thai constitution that arose in the year 1932 CE (พ.ศ. 2475). Currently, Thai bhikkhus cannot give upasampadā ordination to Thai females, and foreign monks cannot enter into Thailand to give upasampadā ordination to Thai females as well (Kanjana Suthikul 2017: 5-8).

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Detection on Momentous Robust Impact of Stock Price among All Sectors in Bursa Malaysia towards COVID-19 Pandemic Daily Announcement News[1]

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Abstract— There is twofold of the study aim: (1) To investigate the reaction trends of stock price in Main Market towards COVID-19 spreads in Malaysia. (2) To investigate the relationship between share price with number of confirmed case of COVID-19 in Malaysia.

This study was tested the reaction of share price based on event study approach and investigate the relationship between share price and COVID-19 using multiple regression approach. Therefore, random effect robust regression model was applied to tackle the dynamic changes in price of stock since the movement is based on daily basis. In Overall, the finding shows that more than half of the sectors' share price are significant as shown by panel A and have a relationship towards the number of COVID cases for instance, construction, consumer product and services, energy, industrial products & services, property, technology, telecommunication & media and transportation & logistic sector with all indicate negatively association. Meaning that, the higher the number of COVID cases, the lower the share price performance.

Index Terms—COVID-19; Share Price; Robust, Sector, Malaysia

I. INTRODUCTION

The novel coronavirus (COVID-19) represents a fearsome risk which is stirring feverish behaviour by investors worldwide include in Malaysia. According to the World Health Organization (WHO), by 10 March 2020, COVID-19 had led to more than 110,000 confirmed infections and 4,015 deaths in 110 countries and the numbers are increasing rapidly. Due to this extremely and drastically increasing in figure, the WHO declare the COVID-19 as pandemic spreads. Following to that, the increasing pattern of this COVID-19 was shown statistically by Worldometers website on 26th October 2020, whereby there are 43,374,933 confirmed infections and 1,159,472 deaths in 215 countries. As of the date, there are 26,565 confirmed cases in Malaysia, with 229 deaths reported by Ministry of Health Malaysia.

The COVID-19 pandemic was first identified to have spread to Malaysia on 25 January 2020. Reported by Malaysiakini news based on source from Ministry of Health Malaysia, the number of COVID-19 remained relatively low until a large spike in cases in March 2020, however within a few weeks after, Malaysia had become the country with the highest cumulative number of confirmed COVID-19 infections in South East Asia (in end of March, 2020) and in midst of April, 2020 the daily confirmed cases shows a decreasing pattern for instance; as of 19th and 20th April 2020, there are only 84 and 36 new confirmed cases in the country respectively (see figure 1). Until the study period, in August 2020 the number of the COVID -19 cases are in decreasing rate.

Beginning from 15 March, Malaysia saw a significant jump in active cases. The Prime Minister of Malaysia held a live nationwide telecast on 16 March 2020 at 10:00PM to announce the decision of the federal government in implementing the Movement Control Order (MCO). With the MCO put in place since 18 March 2020, all citizens have been prohibited from leaving the country with foreigners also prohibited from entering the country. In a statement to StarBiz, Bursa Malaysia said the Covid-19 pandemic has evolved from being health issue to potentially becoming a source of serious economic challenge. In early March, the FBM KLCI along with global markets went through a roller coaster ride, with most markets registering sharp decline of between 20% to 30% following the first fallout from the Covid-19 virus. Consequences of COVID-19, stock market players issue their quick responds on how this virus affect the business performance whereby most of the affected sectors are airlines, tourism, hotels, transportation and many more. Otherwise, some of the company performed better or still active in their trading at Bursa during this situation due to

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product offer received a high demand such as medicines and pharmaceutical and medical company, utility, information technology services, food and services, gas and water and so on.
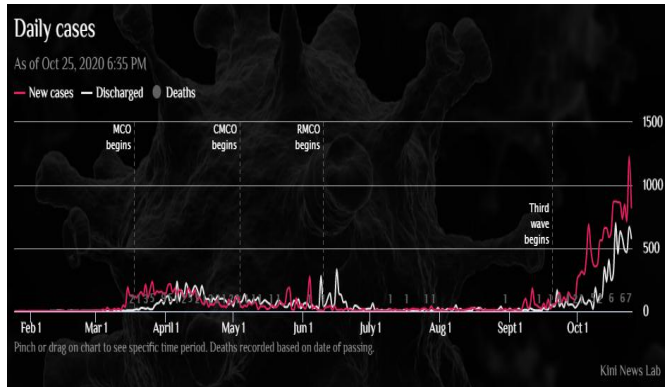
Figure 1: The graph of daily confirmed cases of COVID-19 in Malaysia
Source: Malaysiakini stats, retrieved on 26th October 2020

With this news or announcement on the restrictions especially no. 3 and no. 6 as highlighted above, majority of the stock market player issue their quick responds towards their trading performance that affect the stock price. They also realize that the stock market performance is globally affected by this COVID-19 pandemic spreads.

With the MCO put in place since 18 March 2020[2], all citizens have been prohibited from leaving the country with foreigners also prohibited from entering the country. Consequences of COVID-19, stock market players issue their quick responds on how this virus affect the business performance whereby most of the affected sectors are airlines, tourism, hotels, transportation and many more. Otherwise, some of the company performed better or still active in their trading at Bursa during this situation due to product offer received a high demand such as medicines and Pharmaceuticals Company, utility, information technology

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[2]In the announcement, there were six restrictions have been imposed:
1. The public is prohibited to mass gather or attend massive events including religious, sports, social and cultural activities. All worshiping locations and business premises should be closed except for supermarkets, public markets, grocery stores and convenience stores that sells everyday necessities.
2. Malaysians returning from abroad are required to undergo health check and self-quarantine for 14 days.
3. Tourists and foreign visitors are restricted to enter the country.
4. Closure of all kindergartens, government and private schools, including daily schools, boarding schools, international schools, tahfiz centers and other primary, secondary and pre-university institutions.
5. Closure of all public and private higher education institution (IPTs) and skill training institutes.
6. Closure of all government and private premises except for essential services (water, electricity, energy, telecommunications, postal, transportation, irrigation, oil, gas, fuel, lubricants, broadcasting, finance, banking, health, pharmacy, fire, prison, port, airport, safety, defense, cleaning, retail and food supply).

services, food and services, gas and water and so on.

In parallel with the Malaysian government announcement on the MCO, some of the listed companies' share price is affected. In a joint statement, the Securities Commission and Bursa Malaysia said it is important for the markets to remain open, as closing the markets would neither mitigate nor address the underlying causes of market volatility. The regulators said they would maintain continuous trading and market operation, to facilitate investors to manage their risks and opportunities [1].

Therefore, since our both stock market regulators still encourage the stock market remain open and believe that the investors can diversified their portfolio towards risk and opportunities, that means some of the sectors are underperformed but some of them is outperformed. With respect to that issues, this study is motivated to detect on momentous impact of stock price reaction towards Covid-19 pandemic daily announcement news based on event study approach in Malaysia.

Thus, next sections discuss on the issues arise on how the stock price react towards number of confirmed cases of COVID-19 in Malaysia based on new assumptions. Follows by data and methodology, results and policy implications towards existing government policies compliance by securities commissions and Bursa Malaysia as well as and future regulatory and action need to be taken to facing such pandemic spreads.

II. LITERATURE REVIEW

Bursa Malaysia and other emerging stock markets will likely remain a laggard until June 2020, partly due to the outbreak of the COVID-19. The regional markets would be extremely weighed down if the deadly COVID-19 prolonged. Foreign investors had taken a cautious stance on Bursa particularly, amid the negative headlines emanating from China, they added. Bursa's benchmark FTSE Bursa Malaysia KLCI (FBM KLCI) index ended mixed yesterday amid profit-taking in heavyweights and bargain hunting in small-cap stocks as global markets continued to face uncertainties. The index fell 1.17 points to 1,550.47 from Tuesday's close of 1,551.64[2]. In an interconnected world, domestic confidence is not usually enough. Well run and profitable companies' prices on stock exchanges will adjust accordingly based on the external environments[3].

Stocks on Malaysia's stock exchange of Bursa Malaysia tumbled during the outbreak as investors sold securities due to the expected economic impact caused by the COVID-19, which along with other emerging stock markets are predicted

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[3] Halley, New Straits Times, 29 January 2020

to remain until June 2020[4]. With China as Malaysia's largest trading partner, the country's economy was directly impacted and economic experts have warned the prolonged virus outbreak could hit the country gross domestic product (GDP) hard.

The country's economic growth may fall below 4% if the coronavirus outbreak worsens and powerhouses like China and the US fail to halt the slides of their own economies. Countries across the world are already calculating the billions of losses due to the Covid-19 which is the worst flu outbreak in 18 years. Trade-reliant economies like South Korea, Singapore and Malaysia would be severely impacted. The three countries had already felt the impact of the US-China trade war. China is Malaysia's largest trading partner and the cooling of the second-largest economy in the world would definitely impact the country. The spread of the Covid-19, hits exports, factory output and tourism. A Bloomberg poll of 33 economists estimated Malaysia's average growth of 4.2% with individual forecasts ranging between 3.7% and 4.7%. One analyst expects the coronavirus will hive 0.4% of Malaysia's GDP [4].

Furthermore, China daily on 19 February 2020 reported that Malaysia which also largely relied on tourism and being among the top destinations for Chinese tourists, suffered a stark decline of tourist arrival from Mainland China due to the outbreak with the tourism industry hit hardest; costing around RM3.37 billion losses until March. Malaysian states highly dependent on tourism sectors and being the point for Mainland Chinese visitors such as Johor [5] Malacca [6], Penang [7] and were among the heaviest affected with hotel bookings and food stalls have reported large loss in businesses[5]. These subsequently forced the states to shift their focus to the Southeast Asian market due to the decline of Mainland Chinese tourists [8][9].

Regardless the large losses incurred by tourism businesses, a number of Malaysians have voiced their concerns over the spread of the virus and urging a ban on travellers from China to the country with some 149,000 in support of the call [10][11]. Aberdeen Standard Investments of Malaysia also predicted the country currency of Malaysian ringgit (MYR) to weaken further throughout the local and worldwide outbreak which exacerbate further by instable local political scene in the country [12].

In china, studied about the market performance as proxy by share price changes and response trends of Chinese industries to the COVID-19 pandemic. Their findings stated that transportation, mining, electricity & heating, and environment industries have been adversely impacted by the

pandemic. However, manufacturing, information technology, education and health-care industries have been resilient to the pandemic [13].

In Vietnam, the impact of the COVID-19 lockdown on stock market performance was found that there is an adverse impact of the daily increasing number of COVID-19 cases on stock returns whereby the financial sector was hardest hit on the Vietnam stock market during the COVID-19 outbreak [14].

In United States, COVID-19 outbreak showed a big impact on energy prices and stock market performance besides weakening in crude oil price. They concluded that the COVID-19 has a significant impact on the global economy since their study covers crude oil price and three US stock indexes: DJI, S&P 500, and NASDAQ Composite [15].

Further analysis of the US where changes in share prices allow us to see how different industries are affected by COVID-19 in real-time/daily basis. Stock market data does have a few limitations however, when it comes to measuring the impact of the crisis [16]. Notably it does not include small firms, firms which are not publicly listed, the third sector or the public sector, which might be affected quite differently. For example, many public sector services have seen an increase in demand. In addition, many of these firms operate internationally, so changes in their share prices will represents the effects not only on the UK economy but also in other markets that they operate in. Finally, other factors may also have affected share prices.

The spread of COVID-19, and international measures to contain it, are having a major impact on economic activity in the UK. In this observation we describe how this impact has varied across industries using data on share prices of firms listed on the London Stock Exchange, and how well targeted government support for workers and companies is in light of this. This follows [17] who describe the impact on the US and China by looking at changes in share prices. The industries that have been hardest hit include tourism and leisure (which includes air travel), fossil fuels production and distribution, insurance, retailers (excluding food and drug retailers) and some large manufacturing industries. At the other end of the spectrum some industries have outperformed the market, including food and drug manufacturers and retailers, utilities, high tech manufacturing and tobacco. Unsurprisingly, firms in medical and biotech research have also outperformed the market (falling by 16% relative to the overall fall of 35%). Instead, big changes in share prices occurred from the end of February, in the days following Italy's introduction of a lockdown in Lombardy, with very little change in prices in the period before. The exceptions to this are the gas and water, automotive and parts, and fossil fuel production sectors, where changes in share prices took

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[4] China Daily News, 19 February 2020 Sabah
[5] A statement from Sabah Association of Tour and Travel Agents (Satta) president Datuk Seri Winston Liaw, South China Morning Post.

place steadily over the three-month period, possibly driven by other factors.

Tourism and leisure (excluding air travel) sector stands out in being one of the hardest hit industries (in terms of seeing a large reduction in relative share price) and having a relatively high share of protection. As the shutdown continues, more capital-intensive firms that are not able to substantially reduce their costs may start to struggle more; this may lead to pressure for further government support. There are likely to be long-run costs to the economy if these firms were forced to shut down and the skills and experience of their workers were lost [17].

III.   DATA AND METHODOLOGY

Secondary data used for; share price as a dependent

Variables	Proxies
Dependent Share Price	Daily closing price of the listed company. The company will be segregated into two panel data, A and B. Panel A refers to the sectors most probably affected by COVID-19 as mentioned by analyst in the literature review such as hotels, airlines, services, transportation etc. Otherwise, Panel B refers to the active companies even though during COVID-19 for instance; pharmaceutical products, gas and water, utilities, consumer products and others. We validate the segregation of the sectors in the panel using robust regression model.
Independent COVID-19	Number of confirmed cases by Ministry of Health in Malaysia in daily basis.

variable and number of confirmed cases of COVID-19 as an independent variable. The study period is starting from the first day announcement of COVID-19 in Malaysia, that is 24th January 2020 up to 30th August 2020. The data were gathered from companies' website and Bursa Malaysia Bloomberg for all the daily share price among 13 sectors captured 913 listed companies (see figure 2). The sector of the company was segregated into two panel data, A and B. Panel A refers to the sectors which are most probably affected by COVID-19 as mentioned by analyst in the literature review such as hotels, airlines, services, transportation and many more. Otherwise, Panel B refers to the active companies even though during COVID-19 for instance; pharmaceutical and medical, gas and water, utilities,

consumer products and others. The study also validates the panel segregation by run robust regression to all the observations to identify the affected and not affected sectors based on their share price performance.
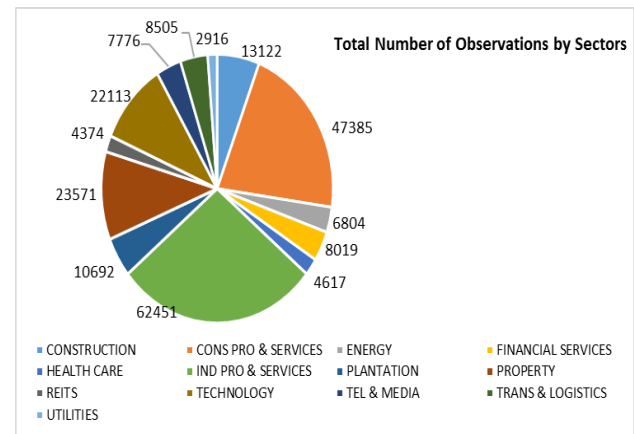
Figure 2: The Number of Observations for the Company in each Sectors

In order to investigate the relationship between share price with number of confirmed case of COVID-19 among sectors in Malaysia, Hausman Test was performed to identify the most appropriate model should be used in making concluding remarks in explaining the relationship between COVID-19 cases with share price. Then, the diagnostic check test was performed on the model selection whereby the modified Wald-chi test for groupwise heteroskedasticity are tested either the variances are constant or not. The significant of probability chi-squared result conclude that there is a heteroskedasticity (variances are not constant) problem. Hence, the most appropriate model is determined based on the significant level of heterokedasticity results. If the chi-squared shows a significant result, then robust multiple regression estimations are required to perform on the selected model and if insignificant the robustness is not required to that level. In this situation, the regression model will run using robust standard errors estimation to overcome or rectify the problem. As benefit of using the Stata, robustness check and test are performed to resolve the problem.

Table 1: Dependent and Independent Variables

This research study tested the reaction of share price towards number of COVID-19 cases by investigate the relationship between share price and COVID-19 using multiple regression approach. Thus, robust regression model will be applied to tackle the dynamic changes in price of stock since

the movement is based on daily basis.

The multiple regression for such relationship is represented by the four model equations as follows:

$SP_{it} = \alpha + COVID\text{-}19_{it} + \varepsilon_{it}$ OLS Model (1)

$SP_{it} = \alpha + COVID\text{-}19_{it} + \varepsilon_{it}, re$ RE Model(2)

$SP_{it} = \alpha + COVID\text{-}19_{it} + \varepsilon_{it}, fe$ FE Model(3)

$SP_{it} = \alpha + COVID\text{-}19_{it} + \varepsilon_{it}, re\ Robust$ Robust RE Model(4)

where SP stands for share Price, the time period is denoted by the subscript t (t=1,…,T=131,043); sectors are denoted by the subscript i (i=1,…,N=13 sectors, 913 companies); α represents constant term; and ε_{it} is the random error term.

Theoretically, a stock price takes into account all available information and expectations about the future. So a stock's price is equal to its current price plus the summation of its expected future dividends.

IV. RESULTS AND DISCUSSION

A. Descriptive Statistics

With respect to the descriptive statistics result as presented in Table 2, the total number of observations used in this study for panel A and B is N = 191,727 and 30,618 daily announcement news bases respectively for both variables proxies either share price or COVID cases. The mean for share price is at RM0.822 and RM1.97 for panel A and B respectively. As for COVID cases is around 39 and 55 cases for panel A and B respectively. Whereas, the maximum value of this variable is RM147.50 and RM 28.40 and 277 cases for panel A and B respectively indicated that the stock price is still performed better in average for most of the sectors even though the number of cases is increasing pattern in Malaysia.

Table 2: Results of Descriptive Statistics

Variable	Panel A				
	N	Mean	SD	Min	Max
Sector	191,727	5.739	3.296	1	12
Date	191,727	22,037	70.15	21,916	22,158
Price	191,727	0.822	4.793	0	147.5
CovidCase	191,727	38.55	55.42	0	277
LnPrice	112,348	-0.849	1.389	-5.298	4.994
Variable	Panel B				
	N	Mean	SD	Min	Max
Sector	30,618	6.77	2.62	4	13
Date	30,618	22,037	70.15	21,916	22,158
Price	30,618	1.97	3.961	0	28.4
CovidCase	30,618	38.55	55.42	0	277
LnPrice	18,695	0.325	1.327	-3.689	3.346

B. Regression Analysis

The study was considered all 13 sectors with 913 listed companies traded in Bursa Malaysia for instance, construction, consumer product and services, energy, financial services, health care, industrial products & services, plantation, property, real estate investment trusts (REITs), technology, telecommunication & media, transportation & logistic and utilities sector. All these sectors were analyzing by using robust regression in order to segregate into two panel, A and B (see Table 3, the panel was indicated in bracket).

Based on results presented in Table 4, unbalanced panel data are applied for the tests since panel A and B indicate unequal number of observations, N which cover the pooled ordinary least square (OLS), fixed effects (FE) and random effects (RE) models. The diagnostic check test was performed on the model selection whereby the modified Wald-chi test for groupwise heteroskedasticity are tested either the variances are constant or not. The significant of probability chi-squared result conclude that there is a heteroskedasticity (variances are not constant) problem. Hence, the most appropriate model is determined based on the significant level of heterokedasticity results. If the chi-squared shows a significant result (in this case both panel A and B indicate a significant at 99 percent confident level for all models), then robust multiple regression estimations are required to perform on the selected model and if insignificant the robustness is not required to that level. In this situation, the regression model will run using robust standard errors estimation to overcome or rectify the problem. As benefit of using the Stata, robustness check and test are performed to resolve the problem. Besides, the study revalidates the result with Hausman diagnostic tests to determine which models i.e; RE or FE, is the best-fit and most appropriate model in explaining the relationship between COVID-19 cases and share price with heterokedasticity problem. The Hausman test results (panel A at -0.28 and B at 0.000 which is both are insignificant) shown that RE is the most appropriate model to explain such relationship.

Table 3: Segregation of the Sectors into Panel, A or B

Variable/ Sector	Robust Model
COVID Cases	-0.00211***
Construction	-1.157*** (A)
Consumer Products & Services	-0.892**(A)
Energy	-1.413***(A)
Financial Services	0.213(B)
Health Care	0.0372(B)
Industrial Products & Services	-1.146***(A)
Plantation	-0.16(B)
Property	-1.259***(A)
Real Estate Investment Trusts	-0.228(B)
Technology	-1.676***(A)
Telecommunications & Media	-1.464***(A)
Transportation & Logistics	-1.097**(A)
Utilities	-(B)
Constant	0.406
Observations	131,043
Number of Stock Name & Code	913
R square	0.1876
Wald chi square	2180.65***
Sector RE	Yes

Note: Robust standard errors in parentheses *** $p<0.01$, ** $p<0.05$

In addition to that, R-square is reported for the model estimation of regression in order to investigate the percentage of relationship from the number of COVID-19 cases as explanatory variation in explaining the share price. The robust RE result also reveals the satisfactory and acceptable value of R-square for about 20.04 percent for panel A and 11.42 percent for panel B. These implies that share price under panel A sectors have about 20.04 percent affected by the COVID-19 cases which is higher than sectorial from panel B as for 11.42 percent.

In Overall, the finding shows that sectors' share price are significant at 99 percent confident level and have a negative relationship towards the number of COVID cases either panel A or B. However, the momentous impact of COVID-19 can be seen quite affected in certain sectors for instance, construction, consumer product and services, energy, industrial products & services, property, technology, telecommunication & media and transportation & logistic sector with all indicate negatively association (supported by results in Table 2). Meaning that, the higher the number of COVID cases, the lower the share price performance. Thus,

this study justifying that there is a negative reaction and significant relationship between share price and COVID cases.

Table 4: Results of Random Effect Robust Regression

Variable	Panel A			
	OLS	RE Model	FE Model	RE Robust Model
Covid Case	-0.0021***	-0.0022***	-0.0022***	-0.0022***
	-7.48e-05	-1.32e-05	-1.32e-05	-5.05e-05
Constant	-0.772***	-0.769***	-0.767***	-0.769***
	-0.00497	-0.0471	-0.000879	-0.0464
Random Effect		Yes		Yes
Fixed Effect			Yes	
R Square	0.007	0.2004	0.2004	0.2004
Wald Chi		27961.61***		1926.38***
Hausman Test		-0.28		
Heteroske-dasticity	2.9e+33***			
Variable	Panel A			
	OLS	RE Model	FE Model	RE Robust Model
Covid Case	-0.0014***	-0.0015***	-0.0015***	-0.0015***
	0.000175	3.00e-05	3.00e-05	9.82e-05
Constant	0.378***	0.355***	0.379***	0.355***
	0.0117	0.116	0.002	0.114
Random Effect		Yes		Yes
Fixed Effect			Yes	
R Square	0.004	0.1142	0.1142	0.1142
Wald Chi		2393.84***		222.61***
Hausman Test		0.000		
Heteroske-dasticity	1.5e+05***			

V. DISCUSSION AND CONCLUSION

The study provides a practical outcome to a government and stock market player (i.e; Bursa Malaysia and Securities Commissions) as well as stakeholders particularly for the future strategize planning while facing with any pandemic event that most probably will be happened again and again.

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Besides, the findings benefited stakeholders where, be able to provide justifications, by considering the risk and opportunities (possible gain in abnormal returns) in trading market, be able to forecast the movement of share price by identifying its significant reaction to certain sectors, and be able to make recommendations and provide inputs to government on risks and opportunities in business performance. An evaluation and comparison of share price volatility across the sectors of the companies listed in Main market of Bursa Malaysia also can further predicted. By segregating the companies into diversify sectors, it can help the policymaker to estimate the market performance during COVID 19 or any future pandemic spreads if happen to the respective business sector based on share price. A robust analysis, which involve a random effect of relationship between share price and COVID-19 cases variables as explained shown a negatively significant relationship in overall. This shows that most of the sectors are affected in their share price performance to worst level even some of them still outperformed. Therefore, again the outcome from this study are beneficial to market player in developing a strategy for buying, selling or hold position for share price movement pattern based on event study approach that can help the policy makers (Government, Bursa Malaysia, Securities Commission, etc) and investors (domestic and foreigner) as guidelines with respect to specific practices/action to be taken that would require more deliberation to secure their future investment in main market in Malaysia. Besides, this study can provide a reference to stakeholders on the significant association between share price and COVID-19 pandemic spreads in Malaysia.

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Evaluation of Guidelines for PPICC: Purpose and Processing on Ideation and Creative Innovations for Competency Innovator

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This research was aimed to 1) determine the current and desirable states, and the priority needs index for PPICC: Purpose and Processing on Ideation and Creative Innovations for Competency Model. Mixed methods research was employed and undertaken in 2 phrases. Phase 1 investigated the model. The qualitative research approach to multiple case study collected data from 2 case studies in order to provide a profound understanding of the subject being investigated and allow for applying the research results to similar context. Phrase 2 investigated the priority needs index for PPICC: Purpose and Processing on Ideation and Creative Innovations for Competency Model. Phase 2 utilizing interviews with 30 experts in human resource development, digital technology, and education administration. Instruments comprise structured questionnaires, guidelines propriety, and feasibility evaluation form. Analyses involve descriptive statistics i.e. frequency, percentage, mean, and standard deviation, PNI Modified, and content analysis.

Results of the evaluation of Phase 1 investigated the model was PPICC: Purpose and Processing on Ideation and Creative Innovations for Competency. Results of the evaluation of Phase 2 investigated that the overall of current and desirable states are at a moderate and highest level, respectively. The highest values of priority need index elements are as follows: The first priority need index fell on Discovery Skill of Ideation Innovations is Creative Mind. Professional Teachers found Skill for Collaboration and problem- solving creative skill, Creating Innovations is to Put to other Use, Goals of successful factors for the development of instructors to have different characteristics are Inspirer, Environment management for learning and teaching found that procurement, resource support, and learning resources for the development of the students to be innovative. Processing is Establish University. Discovery Skill of Ideation Innovations is Creative Mind. Competency Innovator found that Ideation in learning and teaching management found that - build interaction in learning through connection and networking, and the least is Purpose which is Stamina. Therefore, an important mechanism for the development of innovative skills must come from the cooperation of the public sector, the private sector, educational institutes, and the family institute to develop skills, knowledge and ability to keep pace with today's world effectively.

Index Terms— PPICC: Purpose and Processing on Ideation and Creative Innovations for Competency Model, Creative Innovations, Competency Innovator

I. INTRODUCTION

Developing innovations in which the main goal is new value and differentiation of innovations. All sectors of the economy emphasize the importance of innovation, businesses, governments, and organizations. The aim is to find innovative employees who have the ability to cooperate in developing and creating new innovations to build competitiveness and innovation. Innovative individuals are a vital resource and higher education is a key factor in human capital development [1][2][3], and higher education institutions should take into account of preparing innovative individuals according to the needs in the 21st century [4][5]. The master plan has reformed the country to step into the era of Thailand 4.0 that focuses on development in many areas which are setting goals for quality graduates to create and apply operational knowledge to meet the needs of the organization to be able to compete internationally, setting goals that aim to develop graduates into thinkers and able to create innovation by linking with the private and industrial sectors in collaboration with work integrated learning,

innovation and business [6]. To Produce graduates that are innovative in the field of educational management to attract

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students' interest and create an understanding in order to produce graduates to acquire the knowledge, understanding and perspectives in educational management that will be needed to produce graduates who will be creative in the field they study for innovation development for the students' benefits in various fields such as commercial innovation (The Shear Team). Educational management should focus on developing learners and workforce with skills and characteristics that are ready to meet the needs of all sectors. The goal should be to produce manpower into the labor market rather than education based on the availability of educational institutions as at present. Therefore, a guideline for teaching and learning should enhance the ability to produce graduates that are suitable for the current social and technological conditions according to the model for creating innovators at the tertiary level by analyzing the current situation and changing trends affecting the education of the nation based on the fact and important issues affecting education management in higher education.

Setting guidelines that are consistent with the model for enhancing innovation in university graduates production is the process of driving the production of graduates to have the characteristics of innovation of Thai society and ready to compete in the future world society.

II. OBJECTIVES

Determine the current and desirable states, and the priority needs index for PPICC: Purpose and Processing on Ideation and Creative Innovations for Competency Model.
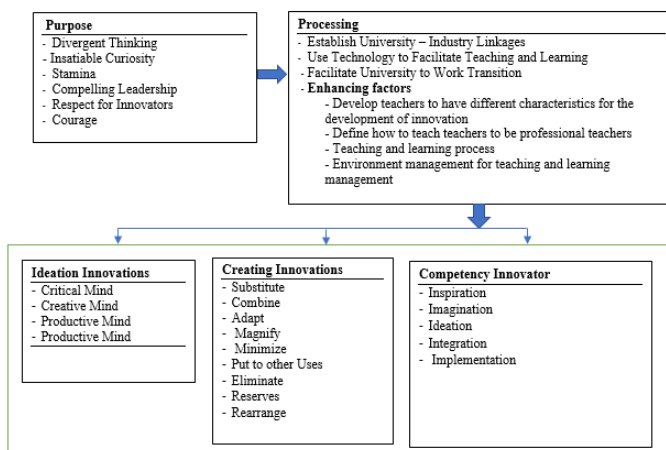
Model: PPICC: Purpose and Processing on Ideation and Creative Innovations for Competency Innovator

III. RESEARCH METHODOLOGY

Mixed methods research was employed and undertaken in 2 phases. Phrase 1 investigated the model. The qualitative research approach to multiple case study collected data from 2 case studies in order to provide profound understanding about the subject being investigated and allow for applying the research results to similar context. Phase 2 investigated the priority needs index for PPICC: Purpose and Processing on Ideation and Creative Innovations for Competency Model. Phase 2 samples are by means of interviews with 30 experts of human resource development, digital technology, and education administration. Instruments comprise structured questionnaire, and guidelines propriety and feasibility evaluation form. Analyses involve descriptive statistics i.e. frequency, percentage, mean, and standard deviation, PNI Modified, and content analysis.

Phase 1

Step 1 Study concepts, theories and research related to the development of innovation for undergraduate programs at private universities by studying concept, theory, research, concept of innovation and enhancement of innovation. Concepts of educational management at the bachelor level; Discovery Skill, Design Thinking and Types of Innovators from domestic and international academic documents and research domestic and 1) (Chickering's Theory of Student Development) [7]. Concepts for research consists of development potential in seven areas which are 1) Developing Competence 2) Managing Emotion 3) Moving Through Autonomy Toward Interdependence 4) Developing Mature Interpersonal Relation 5) Establishing Identity 6) Developing Purpose 7) Developing Integrity 2) Concept for Innovators according to Kylliäinen [8] proposes concepts for creating innovation in six types which are 1) Seek Out Problems 2) Choose Problems That Suit Capabilities, Strategy And Culture 3) Identify The Innovation Strategies Most Likely to Solve the Problems 4) Leverage Platforms to Access Ecosystems of Talent, Technology and Information 5) Build A Collaborative Culture 6) Understand That Innovation Is a Messy Business 3) Concept of design thinking process derived from the concept of De School [9][10] which proposes that design thinking process consists of 5 process which are 1) Empathize 2) Define 3) Ideate 4) Prototype and 5) Test 4) Concept for Discovery Skill from concepts of Dyer, Gregersen, and Christensen regarding skills to seek and find creativity (Discovery Skill) which consists of 5 skills namely 1) Associating 2) Questioning 3) Observing 4) Experimenting and 5) Networking [11]

Phase 2

Step 1 Bring the target model and innovative thinking process towards innovation competency PPICC: Purpose and Processing on Ideation and Creative Innovations for Competency Innovator and conduct structured interviews with 30 experts.

Step 2 Current and desirable states and the priority needs

index of PPICC: Purpose and Processing on Ideation and Creative Innovations for Competency Innovator

IV. RESEARCH FINDINGS

Current and desirable states of PPICC: Purpose and Processing on Ideation and Creative Innovations for Competency Innovator model found that 7 approaches, 24 sub-approaches, and 6 procedures:

Current State of Purpose Setting found that overall level is high ($\overline{X}$ = 3.526, S.D. = 0.90) when considered on each side respectively as follows: Insatiable Curiosity, Stamina, Compelling Leadership, Respect for Innovators, Courage, Divergent Thinking.

Current State of Processing found that the overall level is moderate ($\overline{X}$ = 3.456, S.D. = 0.80) and when considered each side respectively as follows: Use Technology to Facilitate Teaching and Learning, Establish University – Industry Linkages, Facilitate University to Work Transition).

Current State of Discovery Skill found that the overall level is moderate ($\overline{X}$ = 3.225, S.D. = 0.76) Ideation Innovations and when considered each side respectively as follows: Creative Mind, Critical Mind, Productive Mind, Productive Mind.

Current State of Creating Innovations found that the overall level is moderate ($\overline{X}$ = 3.225, S.D. = 0.76) and when considered each side respectively as follows: Put to other Uses, Combine, Substitute, Magnify, Minimize, Eliminate, Reserves, Adapt, Rearrange.

Current State of Competency Innovator found that the overall level is moderate ($\overline{X}$ = 3.125, S.D. = 0.66) and when considered each side respectively as follows: Imagination, Inspiration, Ideation, Integration, Implementation.

Current State of Goals of successful factors for the development of innovation undergraduate courses in private universities found that overall result was at a moderate level ($\overline{X}$ = 3.225, S.D. = 0.78) and when considered each side respectively as follows:

Develop teacher for Professional Teachers was at a moderate level ($\overline{X}$ = 3.220, S.D. = 0.56) and when considered each side respectively as follows: Inspirer, Advocate, Confidant, Friend, Mentor, Leader, Illumination.

Professional Teachers was at a moderate level ($\overline{X}$ = 3.220, S.D. = 0.56) and when considered each side respectively as follows: Subject matt and Pedagogical Knowledge, Skill for Collaboration and problem- solving creative skill, Learning Teaching and Assessment methods.

Learning and teaching management overall result was at a moderate level ($\overline{X}$ = 3.355, S.D. = 0.76) and when considered each side respectively as follows: Create interaction in learning through connection and networking -Create a fun learning concept - Create an assessment model that reflects the results – Create strengthening and supporting factors.

Learning processes for the management of the environment for teaching and learning. overall result was at a moderate level ($\overline{X}$ = 3.220, S.D. = 0.74) and when considered each side respectively as follows: - Develop teachers to have different characteristics for the development of innovation- Define how to teach teachers to be professional teachers - teaching and learning process -Environment management for teaching and learning management.

Desirable State of PPICC: Purpose and Processing on Ideation and Creative Innovations for Competency Innovator:

Desirable State of Purpose found that the overall level is the highest ($\overline{X}$ = 4.520, S.D. = 0.55) and when considered each side respectively as follows: Insatiable Curiosity, Stamina, Divergent Thinking, Respect for Innovators, Courage, Compelling Leadership.

Desirable State of Processing found that the overall level is the highest ($\overline{X}$ = 4.656, S.D. = 0.56) and when considered each side respectively as follows: Use Technology to Facilitate Teaching and Learning, Establish University – Industry Linkages, Facilitate University to Work Transition.

Desirable State of Discovery Skill found that the overall level is the highest ($\overline{X}$ = 4.525, S.D. = 0.77) on Ideation Innovations and when considered each side respectively as follows: Critical Mind, Productive Mind, Creative Mind, Productive Mind.

Desirable State of Creating Innovations found that the overall level is the highest ($\overline{X}$ = 4.567, S.D. = 0.55) and when considered each side respectively as follows: Put to other Uses, Substitute Combine, Magnify, Minimize, Eliminate, Adapt, Rearrange, Reserves.

Desirable State of Competency Innovator found that the overall level is the high ($\overline{X}$ = 4.125, S.D. = 0.87) and when considered each side respectively as follows: Ideation, Integration, Implementation, Imagination, Inspiration.

Desirable State Current State of Goals of successful factors for the development of innovation undergraduate courses in private universities found that the overall level is the highest ($\overline{X}$ = 4.555, S.D. = 0.68) and when considered each side respectively as follows:

Develop teacher for Professional Teachers was at a moderate level and when considered each side respectively as follows: Inspirer, Advocate, Confidant, Friend, Mentor, Leader, Illumination.

Professional Teachers found that the overall level is the highest ($\overline{X}$ = 4.568, S.D. = 0.48) and when considered each side respectively as follows: - Subject matt and Pedagogical, Knowledge Skill for Collaboration and problem- solving creative skill, Learning Teaching and Assessment methods.

Learning and teaching management overall result was at a moderate level ($\overline{X}$ = 4.560, S.D. = 0.54) and when considered each side respectively as follows: Create interaction in learning through connection and networking -Create a fun learning concept - Create an assessment model that reflects the results – Create strengthening and supporting factors.

Learning processes for the management of the environment for teaching and learning found that the overall level is the highest ($\overline{X}$ = 4.540, S.D. = 0.64) and when considered each side respectively as follows: - Develop teachers to have different characteristics for the development of innovation - Define how to teach teachers to be professional teachers - teaching and learning process -Environment management for teaching and learning management.

The priority needs index of PPICC: Purpose and Processing on Ideation and Creative Innovations for Competency Innovator The first priority need index

The priority needs index of Purpose (PNIModified = 0.219) The first priority need index fell on Stamina, Insatiable Curiosity, Compelling Leadership, Respect for Innovators, Courage, Divergent Thinking

The priority needs index of Processing (PNIModified = 0.265) The first priority need index fell on Establish University – Industry Linkages Use Technology to Facilitate Teaching and Learning, Facilitate University to Work Transition.

The priority needs index of Discovery Skill on Ideation Innovations (PNIModified = 0.335) The first priority need index fell on Creative Mind, Critical Mind, Productive Mind, Productive Mind.

The priority needs index of Creating Innovations (PNIModified = 0.293) The first priority need index fell on Put to other Uses, Combine, Substitute, Magnify, Minimize, Eliminate, Reserves, Adapt, Rearrange.

The priority needs index of Competency Innovator (PNI Modified = 0.242) The first priority need index fell on Ideation, Imagination, Inspiration, Implementation, Integration.

The priority needs index Current State of Goals of successful factors for the development of innovation undergraduate courses in private universities and when considered each side respectively as follows:

Develop teacher for Professional Teachers (PNI Modified = 0.291) The first priority need index fell on Inspirer, Advocate, Confidant, Mentor, Leader, Illumination, Friend.

Professional Teachers (PNIModified = 0.295) The first priority need index fell on Skill for Collaboration and problem- solving creative skill, Subject matt and Pedagogical Knowledge, Learning Teaching and Assessment methods.

Learning and teaching management (PNIModified = 0.264) The first priority need index fell on Create

interaction in learning through connection and networking -Create a fun learning concept - Create an assessment model that reflects the results – Create strengthening and supporting factors.

Learning processes for the management of the environment for teaching and learning.(PNIModified = 0.290) The first priority need index fell on Establish University – Industry Linkages - Use Technology to Facilitate Teaching and Learning - Facilitate University to Work Transition.

V. DISCUSSIONS

Based on the results, the current state is at a moderate level while the desirable state is at a highest level, suggesting the needs for PPICC: Purpose and Processing on Ideation and Creative Innovations for Competency Innovator can be used as a policy to implement an educational management development plan to focus on the students' innovation teaching and learning process from the development of teachers to develop environment [12][13][14]. According to Kylliäinen, the concept of innovation is based on finding out from critical problem, choosing a problem that suits your abilities strategy and culture, formulating strategies for developing the most possible innovations to address problems, taking advantage of the platform to access technology information, create a culture of cooperation, and understanding that innovation is a complicated business [15]. According to Manyat Rujivit, Marut Pachotasingha, the academic service of academics in higher education institutions should cover the implementation of innovation in society for improving the quality of people's life in the community and to prevent innovation from emerging. Bringing innovation gained from creativity through the graduate production process in the university should be used for career promotion in order to reduce the inequality of people of society [16].

For desirable conditions, the overall level of Processing is at the highest and when considered on each side respectively as follows: Use Technology to Facilitate Teaching and Learning in which the university should manage with technology in teaching to develop learners' innovation. According to Abhipriya Roy, recent advancements in educational technologies have yielded positive results in our education sector. New educational technology supports both the teaching and learning processes. Technology has digitized classrooms through digital learning tools like, computers, iPads, smartphones, smart digital white boards. It has expanded course offerings, and has increased student's engagement and motivation towards learning. This paper deals with the problems faced by teachers while teaching English in the traditional methods. It propounds five new language games to teach syntax structures to the learners by incorporating

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technology [17]. For the need of the development of innovative skills for the learners of educational institutions found that Discovery Skill of Ideation Innovations has the highest need and when considered on each side as follows: Creative Mind which can be seen that providing students with the ability to discover themselves and to develop thinking skills is a necessary point for developing competence in thinking and creating innovation in various ways as "Design Thinking is a human centred approach to innovation that draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success." "Design is a complex process that is implemented in different disciplines with many factors in mind; one of these factors is the target of the design process. Generally, there are three design process paradigms based on this target; technology-driven design, human-centred design and environmentally sustainable design.

Based on this categorization, human-centred design can be defined as the process that places human needs and limitations in a higher priority compared with other targets during the Design Thinking and production differential stages" Design Thinking has become a major methodology, presently running ahead in the expectations of what it can deliver. Design Thinkers need to take a step back and re-think how to take this concept forward. The Design Thinking community will then follow and respond. There is hope, well beyond a glimmer that we are seeing Design Thinkers recognize they need to step up their game, and take the concept to a more strategic position at system level. This will mean that Design Thinking will change in the future into a greater, fuller "thinking" mindset that can be applied to more complex problems at an organizational level, and contribute to numerous challenges organizations are facing today. It needs to evolve, otherwise it simply fades away, into the background of being just another interesting tool. It certainly needs to mature way beyond a one frame thinking concept to achieve this. DT needs to go beyond being a thinking method for products, services, and customer experience. System level thinking is where the future of design is focused, and where much of the current confusion lies, as we are in the middle of these changes. Investing time in defining the desired outcome is critical in any Design Thinking journey. And the same may hold true for the the journey of the method itself. These are exciting times! We are witnessing how one of the most promising — since human centered — innovation methods is evolving towards becoming essential for organizational thinking.

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The Performance of Sovereign and Non-Sovereign Bonds and Their Relation towards Yields in Malaysia

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Abstract— This study aims to investigates the significant mean different between the sovereign bonds and non-sovereign bonds performance with regards to their facets and to analyze the relationship of these bond facets towards their yield performance in Malaysia. Secondary data used for such government bond issuances cover the period of 2015-2020. The data gathered from Bank Negara Info Bond Hub website, Bloomberg and Malaysia Energy Information Hub and others for such a Malaysian government bond facets. The results show that there is a statistically significant mean different between two types of bonds, sovereign and non-sovereign whereby the performance of their facets could be in different patterns depending on fluctuation in price respectively. Besides, there is a significant relationship between the facets of these bonds such as price, tenure and amount of issues as well as control variables towards their yields. The outcome of the study provides a reference to stakeholders as well as government as an investment options that provide a permissible return to them.

Index Terms— Sovereign Bond, Non Sovereign Bond, Robust Performance, Yield, Malaysia

I. INTRODUCTION

Amongst the integral parts of the Malaysian capital market is bond market that has expanded rapidly by becoming as one of the largest markets in Asia. As at the end of 2010, the outstanding amount of bond was RM758.7 billion rose by 16.2% from RM653.2 billion in 2009. In 2010, the SC approved 52 private bond for issuance with a value of RM63.6 billion as compared with 34 approved issues with a value of RM57.5 billion in 2009 (SC,2010). Amongst these issuances, the main issuers of public debt are the Government of Malaysia, the central bank (Bank Negara Malaysia, henceforth as BNM), and quasi government institutions (Khazanah, Danamodal and Danaharta). The National Mortgage Corporation (Cagamas Berhad), financial institutions and non-financial corporations issue private bond and asset-backed securities.

The bond market in Malaysia has developed significantly in terms of market size, range of instruments and efficiency. The development of the bond market centers on the need to establish a well-diversified financial base to meet the changing needs of the Malaysian economy. Concerted measures to develop the bond market were taken by the Government, and success of these efforts are reflected in the significant growth of the bond market, marking Malaysian bond market as one of the fastest growing bond markets in Asia (BNM, 2012).

Government bond are marketable debt instruments issued by the government of Malaysia to raise funds from the domestic capital market to finance the government's development expenditure and working capital for their project transformation. BNM in its role as banker and adviser to the Government advises on the details of Government securities issuance include Malaysian Government Securities (MGS) and facilitates such issuance through various market infrastructures that it owns and operates.

Concerning the sovereign bonds, it refer to any bonds issued by a country's central government for fiscal reasons. They take different names and forms, depending on where they are issue, their maturities, and their coupon types. For example, Malaysia government bonds with an original maturity shorter than one year known as treasury bills. Sovereign bonds are usually unsecured and backed by the taxing authority of a national government. Credit rating agencies perform sovereign risk analysis in both local currency and foreign currency. The risk level of local and foreign currency is different. Generally, if an issuer is planning to default, it is more likely to do so with a foreign

currency issue, as it has less control over foreign currency with respect to its exchange rate. In addition to that, sovereign bonds can be domestic bonds, foreign bonds and Eurobonds. They can be fixed-rate, floating-rate or inflation-linked bonds. For example, Treasury Inflation Protection Securities (TIPS) are T-notes or T-bonds that adjusted for inflation.

In the 2020, sovereign bonds will face the strategic challenge of achieving alignment with the Sustainable Development Goals. For sovereign bonds to develop the required resilience in the disruptive decade that lies ahead, decisive action is probably required from issuers, investors, credit rating agencies and international institutions, as well as researchers and civil society, to ensure the full value of nature is incorporated. Sovereign bonds are one of the largest asset classes with an outstanding global value of US$66 trillion. They are also one of the systemic asset classes: sovereign bonds capture a range of macro-economic factors, influence broader capital market pricing and system stability and are core holdings for financial institutions (Pinzón, Robins, McLuckie and Thoumi, 2020).

With respect to the non-sovereign bonds, this are bonds issued by local governments. The sources of repayment proceeds are the general taxing authority of the issuer, project cash flows and special taxes. This type of bonds receives high credit ratings due to low default rates. They often trade at a higher yield than their sovereign counterparts do.

The remainder of the paper structured as follows. Section 2 includes review of literature on sovereign and non-sovereign bonds performance mostly from other countries since this area of study is probably still under research in Malaysia up to date since there is no previous study was found. Then, section 3 describes the data and variables used besides stated the research methodology applied where the statistic derived in this section to test the model hypothesis testing. Further, the results are discuss to show how the model can be apply by government in section 4. Finally, section 5 summarizes some conclusions and recommendations.

II. LITERATURE REVIEW

Performance of government bonds are profoundly relying on the trading activities should be transparent, fully retrieved on yield information and market liquidation. Scholtens (2010) investigate the implications of using different indicators to assess the sustainability performance of Dutch government bond funds found that it does matter a lot which particular indicator is used. The study suggested that funds should be very transparent and straightforward about their non-financial performance. Besides, Carriero, Kapetanios and Marcellino (2010) proposed new approach by extracting information regards to large panel of yields efficiently to forecast the term structure of interest rates for future performance.

Yields changes lead to draw the performance movement of bond whereby Zhou (2011) apply Bayesian Model Averaging (BMA) to forecast the government bond yield changes and indicate BMA model can significantly outperform the random walk model at one-month-ahead horizon. In addition, Gruber and Kamin (2011) observed the impact of debt level on long-term government bond yields in the OECD over the period from 1988 to 2007. The result had shown a robust performance and significant effect of debt level on long-term bond yields.

In one hand, most of the study was recorded that the performance of government bond is performed in generating huge return through stabilization if yields. However, on the other hand it shown underperformed. For instance, Fujiwara, Körber and Nagakura (2013) was found that liquidity in government bond markets predicts the coefficient of skewness with a positive sign, meaning that the probability of a large and negative excess return is more likely in a less liquid market. In addition, a positive realized return is associated with a negative coefficient of skewness or a small probability of a large and negative return in the future.

Lekkos and Milas (2004) studied the behaviour of expected excess returns on UK government discount bonds of the sample from 1977:01 to 1986:06 reported that in the first half of study period, bond holders require high returns during recession periods and low returns during periods of expansion. This relationship reversed in the second half of the sample. Ferson, Henry and Kisgen (2003, 2006) stated that most government bond returned underperformed indicated below than average performance evaluation for US fixed income mutual funds from 1986 until 2000. The result was supported by Comer and Rodriguez (2006) examine four separate classifications (high quality corporate, general corporate, government Treasury, and general government) of investment grade bond funds over the 1994-2004 periods. The finding was documented a significant differences in performance as corporate funds outperform government funds on a risk adjusted basis. The performance results are robust to alternative evaluation metrics.

By comparing with three strong market economics countries, Fearnley (2002) investigates whether US, Japanese and European stock and government bond return indices are jointly price within a conditional multivariate form of the international Capital Asset Pricing Model during the period 1993-2001. It also explores the time variation of the price of market risk within this framework, allowing for a structural change in the prices of market and currency risk. The significant finding found to be better for the stock markets than for the bond markets. Then, Kumar and Okimoto (2011) researched on the dynamics of international government bond market integration in six of the G7 economies over two decades leading up to the global crisis. Result revealed that, the integration at the long end of the yield curve had been increasing, had become pronounced, and was significantly greater than at the short end.

Bank, Kupfer and Sendlhofer (2012) proposed an innovative instrument of sovereign debt financing named Performance-sensitive government bonds (PSGB) whereby its main characteristic are coupon payments associated to debt policy. The analysis has shown that this new instrument was create an important incentive for governments. In addition, the issuances of PSGB build up long-term reputation and lead to lower average financing costs to mitigate the long-term default risk premium and therefore ease budget constraints. Whilst a rising interest rate spread only has an effect on new or rolled-over debt, PSGB influence all debt outstanding, leveraging the consequences of policy decisions on governments.

In addition to that, Reschreiter (2004) mentioned that government could significantly reduce their cost of long term financing through issuing inflation index-linked debt. However, the issuances with maturities less than 3 years do not significantly reduce their risk compensation. The beta of the nominal bond proxy by coupon rate is lower than the beta of the real bond. Consequently, an estimated a single-latent-variable model of predicted nominal and real bond excess returns suggests that a single time varying risk prices UK government bonds.

Instead of interest rate, other study linked the performance of government debt financing with inflation rate. For instance, Fung, Wai-Ming and Zhu (2000) analyzed an association of government debt financing with macroeconomic factors (inflation rate) in Chinese. Result was reveal that when Chinese government was heavily depends on debt financing to solve their budget deficit and interest payment obligation leads to reduce the output growth rate of the money supply, boost up inflation rate and the tax rate on labor income is sufficiently low.

Then, Reschreiter (2004) mentioned that government could significantly reduce their cost of long term financing through issuing inflation index-linked debt. However, the issuances with maturities less than 3 years do not significantly reduce their risk compensation. The beta of the nominal bond proxy by coupon rate is lower than the beta of the real bond. Consequently, an estimated a single-latent-variable model of predicted nominal and real bond excess returns suggests that a single time varying risk prices UK government bonds. Lekkos and Milas (2004) studied the behaviour of expected excess returns on UK government discount bonds of the sample from 1977:01 to 1986:06 reported that in the first half of study period, bond holders require high returns during recession periods and low returns during periods of expansion. This relationship is reverse in the second half of the sample.

According to Hegde (1987) examined the forecast performance of near-term of Treasury Bond futures contract traded on the Chicago Board of Trade reported that the contract fails to outperform the forecasting for long term interest rates investment. Similar finding of study stated by Samarakoon (1998), overall performance of Sri Lankan Treasury bond monthly portfolio shown rebalanced and appreciation both in account capital and bond returns for long-term interest rates portfolio investment.

Fung, Wai-Ming and Zhu (2000) analyzed an association of government debt financing with macroeconomic factors in Chinese. Result was reveal that when Chinese government was heavily depending on debt financing to solve their budget deficit and interest payment obligation leads to reduce the output growth rate of the money supply, boost up inflation rate and the tax rate on labor income is sufficiently low.

III. Data and Methodology

Secondary data used for unbalanced panel data that is segregate into three panel data, that are panel A is for pooled sample, B for sovereign bonds and C for non-sovereign bonds. Yield for both types of bond, sovereign and non-sovereign become dependent variable. Other variables such as price, tenure or year to maturity and amount of issues in Malaysian Ringgit (MYR) in million are independent variable. This study also considered Gross Domestic Product percapita (GDP), Consumer Price Index (CPI) and Energy Intensity percapita (Energy) as control variables.

The total sample of n=2190 of sovereign and non-sovereign bonds issuances was retrieved which is representing a full sample which is consist of n=69 and n=2121 respectively cover period of year 2015 to 2020 (up to October 2020 issuances). For the purpose of collecting information on the sovereign and non-sovereign bonds facets, this study obtained data from Malaysian central bank, Bank Negara Malaysia (BNM) Bond Info Hub and Bloomberg where there are sufficient for gathering data on coupon rates, types of instrument, size of issuance, price and yields. Concerning data for control variables, it retrieved from Malaysia Energy Information Hub (MEIH) statistics website.

In this study, yields is refers to the rate of return anticipated on a bonds if it is held until the maturity date which is considered a long-term government bond yields expressed as an annual rate. The equation for yield is state as below:

$$Yield = c (1 + r)^{-1} + c(1 + r)^{-2} + \ldots + c(1 + r)^{-Y} + P(1 + r)^{-Y}$$

Where;
    c is the annual coupon payment (in Malaysian Ringgit),
    Y is the number of years to maturity,
    r is the discount rate, and
    P is the par value of the government bond.

This research study investigate the relationship between yield and independent and control variables using multiple regression approach for both regression model, either fixed effect (FE) or random effect (RE). The multiple regression for such relationship is represent by the model equations as follows:

$$Yield_{it} = \alpha + b1Price_{it} + b2Tenure_{it} + b3Issue_{it} + b4GDP_{it} + b5CPI_{it} + b6Energy_{it} + \varepsilon_{it}, re \quad \ldots. \text{ RE Model}$$

$$Yield_{it} = \alpha + b1Price_{it} + b2Tenure_{it} + b3Issue_{it} + b4GDP_{it} + b5CPI_{it} + b6Energy_{it} + \varepsilon_{it}, fe \quad \ldots. \text{ FE Model}$$

$$Yield_{it} = \alpha + b1Price_{it} + b2Tenure_{it} + b3Issue_{it} + b4GDP_{it} + b5CPI_{it} + b6Energy_{it} + \varepsilon_{it}, re \ robust \quad \ldots. \text{ RE Robust Model}$$

where, the time period is denoted by the subscript t ($t=6, T=2015\ldots.2020$); types of issuances by the subscript i ($i=2,\ldots.,N=2$ category, 2190 issuances); α represents constant term; and ε_{it} is the random error term.

Next, in order to select the best-fit model of relationship

between dependent, yield and independent, price, tenure and amount issue, as well as control variables, Hausman Test performed. This is important step to identify the most appropriate model in making concluding remarks in explaining the relationship for both type of bonds. Then, it was follows by diagnostic check test on the model selection whereby the modified Wald-chi test for groupwise heteroskedasticity are tested either the variances are constant or not. The significant of probability chi-squared result conclude that there is a heteroskedasticity (variances are not constant) problem. Hence, the most appropriate model is determined based on the significant level of heterokedasticity results. If the chi-squared shows a significant result, then robust multiple regression estimations are required to perform on the selected model and if insignificant, the robustness is not required to that level. In this situation, the regression model will run using robust standard errors estimation to overcome or rectify the problem. As benefit of using the Stata, robustness check and test are, perform to resolve the problem.

Here with, this study developed the hypothesis to outfit for the pooling regression model as below:

    H1: There is a significance means difference of sovereign and non-sovereign bond instruments as regards to their yield performance.
    H2: There is a relationship between sovereign and non-sovereign bond yields and its facets.

IV. RESULTS AND DISCUSSION

A. Descriptive Statistics

Table 1 revealed the overall performance of sovereign and non-sovereign bonds for minimum, maximum and mean value of utilized data in panel A, B and C. Amidst the period of studied, some of the sovereign and non-sovereign bonds issuances shown in zero coupon whereby the minimum value indicates 0.00, however the yield for maximum value is at 5.26% and 15% for panel B and C respectively. It shows that the non-sovereign bonds indicates higher yield in overall performance. As suit to the government bond that offers more to risk free rate based with zero coupon, this yields performance look like stable for long-term investment without distressing losses.

In terms of bond price, the minimum shown at only MYR96.63 and maximum is at MYR100.00 with the average value of MYR99.57 for panel B whereby it shows much

different to panel C, at minimum with MYR 66.91, maximum at MYR149.51 and in average mean of MYR99.73. This implies that the price movement was very volatile for panel C even though the mean value deviate to highest level representing the risk of creditworthiness bear impeded. This price performance are also associate to the tenure of the bond investment whereby the result show that panel B issue longer than panel C.

With respect to the amount of issuance, the original value indicating in Malaysian ringgit (MYR) in million shows that panel C issue more as compare to panel B, however panel B issue higher minimum level than C with the average issuances for both types of bond is not much different at MYR181.5m and MYR200.22m for panel B and C respectively.

Table 1: Descriptive Statistics Results

Panel A Pooled Sample

Variables	Obs	Mean	Std. Dev.	Min	Max
Year	2190	2017	1.57	2015	2020
Type	2190	1.97	0.17	1	2
Yield	2190	3.77	2.23	0	15
Price	2190	99.73	2.36	66.91	149.51
Tenure	2190	7.36	5.85	1	42
Issue	2066	178.81	206.23	0.1	955
GDP	2190	43256	4195	37123	50224
CPI	2190	118.98	3.3	112.8	122.7
Energy	2190	1.97	0.17	1.66	2.23

Panel B Sovereign Bond

Year	69	2017	1.17	2015	2020
Yield	69	2.55	2.16	0	5.26
Price	69	99.57	0.74	96.63	100
Tenure	69	9.35	10.28	1	42
Issue	43	529.07	181.5	200	900
GDP	69	440004	3139	37123	50224
CPI	69	119.77	2.46	112.8	122.7
Energy	69	1.98	0.12	1.66	2.23

Panel C Non Sovereign Bond

Year	2121	2017	1.58	2015	2020
Yield	2121	3.8	2.22	0	15
Price	2121	99.73	2.4	66.91	149.51
Tenure	2121	7.3	5.65	1	38
Issue	2023	171.37	200.22	0.1	955
GDP	2121	43510	4225	37123	50224
CPI	2121	118.96	3.32	112.8	122.7
Energy	2121	1.96	0.17	1.66	2.23

B. One-way Analysis for Yield Comparisons

Table 2 Mean Different Results

Source	SS	df	MS	F	Prob > F
Between type	105.07304	1	105.07304	21.28	0.000
Within type	10805.013	2188	4.9383057		

Results from mean comparison in table 2 shown that there is a significant mean different between yields of sovereign and non-sovereign bonds at 99% confident level with F value of 21.28. The result postulate that yield performance for both types of both have a different patterns even though their facets is the same and traded under the similar capital market place. Theoretically, lower coupon rate will be increase the price of the bonds and versed versa that affect to yield performance. Therefore, it can be concluded that, H1 was accepted since the results was revealed that yield have shown a significant mean different between these two type of bonds instrument in Malaysia.

C. Regression Analysis

Table 3: Multivariate Regressions Results

Panel A Pooled Sample

	RE	FE	RE Robust
Constant	-4.100***	-7.22***	-2.64***
Price	8.750***	8.63***	3.080***
Tenure	16.910***	19.94***	17.36***
Issue	-2.780***	-2.78***	-3.520***
GDP	0.09		0.09
CPI	2.150**		2.100**
Energy	-1.950*		-1.960**
Observations	2066	2066	2066
R-Square	18.10%	16.33%	18.10%
Wald chi2	454.90***	-126.02**	472.94***
F-Value	-	*	-
BP-LM	0.65(0.4216)		
RE Effect	Yes		
FE effect	-	Yes	

Panel B Sovereign Bond

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	RE	FE	RE Robust
Constant	-7.160***	-7.32***	-3.95***
Price	7.790***	7.45***	3.630***
Tenure	4.610***	4.47***	4.180***
Issue	-0.780	-0.730***	-1.150***
GDP	-2.230**		-2.060**
CPI	1.860*		2.450**
Energy	1.12		0.98
Observations	43	43	43
R-Square	85.55%	79.96%	85.55%
Wald chi2	213.07***	-	422.04***
F-Value	-	0.000	-
BP-LM	2.39(1.222)		
RE Effect	Yes		
FE effect	-	Yes	

Panel C Non Sovereign Bond

	RE	FE	RE Robust
Constant	-4.090***	-6.970***	-2.680***
Price	8.500***	8.370***	3.060***
Tenure	16.510***	16.56***	16.850***
Issue	-2.100**	-2.11**	-2.740***
GDP	0.35		-0.350**
CPI	2.260**		2.200**
Energy	-2.200**		-2.190**
Observations	2023	2023	2023
R-Square	17.83%	16.08%	17.83%
Wald chi2	437.49***	-	456.08***
F-Value	-	120.75***	-
BP-LM	0.49(0.4853)		
RE Effect	Yes		
FE effect	-	Yes	

Note: ***, ** & * denotes the significant level at 99%, 95% & 90% respectively.

Based on results presented in Table 3, unbalanced panel data are applied for the tests since panel A and B indicate unequal number of observations in their issuances and period, cover the fixed effects (FE) and random effects (RE) models. The diagnostic check test was performed on the model selection whereby the modified Wald-chi test for groupwise heteroskedasticity are tested either the variances are constant or not. The significant of probability chi-squared result conclude that there is a heteroskedasticity (variances are not constant) problem. Hence, the most appropriate model is determined based on the significant level of heterokedasticity results. If the chi-squared shows a significant result (in this case, all panels A, B and C indicate a significant at 99 percent confident level for all models), then robust multiple regression estimations are required to perform on the selected model and if insignificant the robustness is not required to that level. In this situation, the regression model will run using robust standard errors estimation to overcome or rectify the problem. As benefit of using the Stata, robustness check and test are, perform to resolve the problem. Besides, the study revalidates the result with Bruesh Pagan-Lagrarian Multiplier (BP-LM) diagnostic tests to determine which models i.e; RE or FE, is the best-fit and most appropriate model in explaining the relationship between yield and it facets as well as control variables with heterokedasticity problem. The BP-LM test results (panel A at 0.65, B at 2.39 and C at 0.49 which is all models reported insignificant result) shown that RE is the most appropriate model to explain such relationship with robust effect to rectify the heterokedasticity problem.

In addition to that, R-square reported for the model estimation of regression in order to investigate the percentage of relationship from the sovereign and non-sovereign bonds facets as explanatory variation in explaining the yield. The result also reveals the satisfactory and acceptable value of R-square for about 18.10%, 85.55% and 17.83% for panel A, B and C in the most appropriate model, RE robust regression respectively. These implies that for instance, yield under panel A have about 18.10% affected by the bonds facets performance and control variables such GDP, CPI and energy intensity that much probably stakeholder do an investment in the sector.

In Overall, the finding shows that yield for sovereign and non-sovereign bonds are significant at 99 percent confident level in all models, panel A, B or C. Besides, the result also reported that the association is consistent among panel; for instance, there are significant positive relationship between yield performance with price and tenure but inverse relationship with the amount of issue. Concerning the control variables, the result shown different significant level for all panel where yield have a significant relation towards CPI and energy intensity in pooled sample, panel A but insignificant relation with GDP. Contrast result reveal by panel B whereby CPI shown insignificant and all control variables shown significant in panel C. Means that, the bonds issuances either sovereign and non-sovereign have different factor in determining their performance especially yield. Therefore, the study accept the H2.

Table 4: Pairwise Correlations Results

Panel A Pooled Sample

Var	Obs	Yield	Price	Tenure	Issue	GDP	CPI	Energy

		Yield	Price	Tenure	Issue	GDP	CPI	Energy
Yield	2190	1.00						
Price	2190	0.19	1.00					
Tenure	2190	0.36	0.04	1.00				
Issue	2066	0.06	0.07	0.30	1.00			
GDP	2190	-0.18	-0.01	-0.11	0.04	1.00		
CPI	2190	-0.17	-0.04	-0.12	0.05	0.95	1.00	
Energy	2190	-0.17	-0.02	-0.10	0.05	0.99	0.97	1.00

Panel B Sovereign Bond

		Yield	Price	Tenure	Issue	GDP	CPI	Energy
Yield	69	1.00						
Price	69	0.26	1.00					
Tenure	69	0.45	0.70	1.00				
Issue	43	0.13	0.18	0.33	1.00			
GDP	69	0.25	0.03	0.22	-0.22	1.00		
CPI	69	0.29	0.05	0.13	-0.26	0.93	1.00	
Energy	69	0.98	0.36	0.15	0.27	-0.19	0.98	1.00

Panel C Non Sovereign Bond

		Yield	Price	Tenure	Issue	GDP	CPI	Energy
Yield	2121	1.00						
Price	2121	-0.01	1.00					
Tenure	2121	0.04	0.36	1.00				
Issue	2023	0.07	0.06	0.29	1.00			
GDP	2121	-0.02	-0.18	-0.13	0.04	1.00		
CPI	2121	-0.05	-0.17	-0.13	0.05	0.95	1.00	
Energy	2121	-0.02	-0.18	-0.12	0.05	0.93	0.91	1.00

Table 4 reported the p-value of correlation are relatively low (correlations value less than 0.7) justifiable that no multicollinearity problems exist among independent variables exclude control variables as mentioned by Gujarati (1995). Results was shown that yield have positively significant correlated with independent variables. Mixed results reported to other variables.

V. DISCUSSION AND CONCLUSION

This study investigates the significant mean different of yield for sovereign and non-sovereign bonds issue in Malaysia capital market. In addition to that, the study also analyze about the relationship between yield and it facets as well as control variables. Evidently, results revealed that there are significant mean different of bond yield for sovereign and non-sovereign. The fluctuation in yields as measurement of return for this bonds as a long-term investment need to look into details their facets changes in ensuring the transformation execution can be enhances for sustainable economics in capital market not only in Malaysia but also can endeavor global market. With respect to the relationship between yield and its facets for both instruments,

sovereign and non-sovereign, the result reveal that are significant at 99% confident level for all the panel, A, B and C. With that, this study would recommend for the future research, other variables such as government policies and other macroeconomic factors can be consider in investigating the performance of sovereign and non-sovereign and maybe could consider other types of government bonds. The study also believe that more sample periods should be used and maybe indicate better comparison performance if the sample was cross the countries.

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Empowerment Models Change Knowledge of Duck Breeders in Rokan Hulu District, Riau Province, Indonesia

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Abstract:--

Avian influenza (Avian Influenza) is a disease caused by the Influenza Virus type A and transmitted by poultry. Bird flu education was carried out to avoid it zoonotic diseases. This disease is very easily transmitted between birds and from poultry to human. The reality in the field is that there are several breeders who are have low knowledge about bird flu so that farmer productivity Pitalah ducks are less. So with this, it is necessary to do research oneffectiveness of brochure printing media in the form of leaflets and polders in Rokan Hulu Regency. This research was conducted to find out changes in knowledge of duck breeders about bird flu with using brochure print media in Rokan Hulu Regency. This research held on August 25 to November 25, 2020 at Rokan Hulu Regency. Data analysis was performed using non statistical techniques parametric is the Wilcoxon test, which compares the pretest and posttest results. Method data processing in this study is by comparing (gain value) before reading the brochure (pre-test) and after reading the brochure (final test). The results are can be taken from this research, namely on the first day the printed media leaflets and polders can increase farmer knowledge about bird flu while on the seventh day Farmers' knowledge began to decrease due to the length of time the leaflets were distributed it has been given for a long time to make the memory of the farmer decrease. Brochure print media (Leaflet and polder) were both effective as media for bird flu education.

Index Terms
Knowledge Change, Avian Flu, Print Media

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Creative Textile: The interactive art installation from Thai silk

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Abstract:--

Although Thai silk fabric is well known for its unique characteristics such as shiny, smooth, luxury and cultural richness, there are some limitations of weaving technique, textile innovation knowledge and creativity to be developed. The typical look of Thai silk fabric is vivid color, flat, non-function which make it remains remembered as old style traditional products. As well, the finished products from Thai silk is mostly fabric and clothing. To create new texture and function by combining Thai silk yarn with other yarn types is not popular, which might be affected from the belief that it would decrease Thai silk value. Also, lacking of material comprehension makes most of the designers could not utilize every part of the material. However, Thai silk specie, or in scientific word is Multivotine silk yarn, has found to be a good quality material for textile global market, suited Thai local farmer lifestyle and Thai weather conditions. This project was aimed to develop interactive surface design from Thai silk yarn which is the existing resources in Thailand to enhance it to be more than Thai cultural fabric as people mentioned about. The researcher will experiment on the combination among new textile innovations, weaving technique and also using Thai silk yarn to combine with other yarn types. Some innovations such as reflective yarns and UV sensitive pigments will be added and tested. Every components of Thai silk yarn will be used to develop and experiment in order to utilize the materials. By the result, Thai silk will not be only for showing luxury traditional fabric, but also can be functional as playable, touchable, accessible and more creative. Finally, the project will represent the value of Thai silk by its story in term of interactive textile art installation, adapting combination of textile technique and material selection knowledge.

Keyterms:--

Thai silk, Interactive textile, Art installation

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Personnel Management according to Buddhist Principlesof Education Personnel in Schools towards Sustainability

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Abstract:--
      Personnel management is a management that relies on modernity and keep up with the events. The most important part is mobility and can always be integrated with various situations. Therefore, modern and sustainable personnel management is a combination of interdisciplinary management, but another form of management that can be applied perfectly with personnel managementand always up to date is administration according to the principles of Buddhism.The application of the principles of Buddhism in administration is Suppurisadhamma VII which is the principle that makes virtues of a gentleman, having righteousness that is being a person with knowledge, wisdom, or having a correct perspective on the truth, and being a person who has fair consensus or a good person including being a person who knowing the cause, knowing the purpose, knowing oneself, knowing how to be temperate, knowing how to choose and keep time, knowing the society, and knowing the different individuals. These principles can be integrated or applied to personnel management as well and efficiently although these principles have been discovered for more than two thousand and five hundred years in order to be effective and efficient for sustainable management and also has morality as well.

Index Terms—
      Personnel Management, Buddhist Dharma, Education Personnel in Schools, Sustainability

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Treatment of Palm Oil Mill Effluent by Thermotolerant Cellulase and Xylanase - Producing Fungi

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Abstract:--
Fungi strain, namely DC, DH, DS, WR, WB, WP andWT, were isolated from dungs and agriculture waste to produce cellulase and xylanase for palm oil mill effluent treatment. Studies on thermotolerant properties of fungi room temperature and 60oC.The result showed that all isolated strains were found to be thermotolerant fungi with 50°C and the optimum temperatures of 45°C. The isolates of DC, DH, WR, WB, WPandWT were classified as Aspergillus sp. while DS was classified asScytalidiumsp. The enzyme activity of thermotolerant fungi revealed that WT produced the highest activities of carboxymthyl cellulase (CMCase) and xylanase of 678.14 and 2069.12 U/ml, respectively. The activities of carboxymthyl cellulase (CMCase) and xylanase exhibit 80.14 and 244.54 U/ml of protein, respectively. This study also demonstrated the effect of treatment efficiency in palm oil mill effluent. The result showed that Aspergillus sp. WT is the best strain reducing BOD and COD value to respectively 31.02% and 49.05% after the treatment. Therefore, the thermotolerant enzyme - producing fungi are potentially useful in treating palm oil mill effluent.

Index Title –

Thermotolerant Fungi, Carboxymthyl Cellulase, Xylanase, Waste Treatment, Palm Oil Mill Effluent

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DIFFERENCES OF OPINION: THE DEBATE ON THAI THERAVĀDA BHIKKHUNĪS

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Abstract:--

This paper attempted to summarize the findings regarding the question about the acceptance of Theravāda bhikkhunīs in Thai society across different sections of the Thai population. The statistics approach to this research article and questionnaire sample is cross-sectional data from April 20 to May 12, 2017. Interviews and group discussions have also been utilized as a method to facilitate an open-conversation atmosphere to get our subjects speaking. Nevertheless, since the questionnaire method is anonymous, our subjects feel more at ease to express their opinions regarding the Theravāda bhikkhunī ordination debate in Thailand. Thus, it is hoped that this paper provide a better comprehension of how the Thai people perceive the role of Theravāda bhikkhunī in Thai Buddhist culture and the possibilities for their recognition in the future. Moreover, it is hoped that this research will reveal how the Thai Theravāda bhikkhunīs perceive themselves in their role inside the fourfold assembly consisting of bhikkhus, bhikkhunīs, lay men, and lay women in propagating the Gotama Buddha's teachings.

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A Model of Human Resource Management based on Kalayanamitta Principles of Educational Institute Affiliated to Secondary Educational Service Area Office

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Abstract:--
This research aims 1) to studythe problems of human resource management of educational institutes affiliated to secondary educational service area office, 2) to develop a model of human resource management according to principles of Kalayanamitta of educational institutes affiliated to secondary educational service area office, and 3) to propose a model of human resource management according to Kalayanamitta principles of educational institutes affiliated to secondary educational service area office. This study approached mixed methods research including qualitative research and documentary research, which used to form a semi-structured interview for in-depth interview from the five key informants. The model was developed by focus group discussion by examining the model by distributing the questionnaires based on four aspects of standard assessment namely, 1)beneficial, 2) feasibility, 3) suitability, and 4) accuracy. The sample for this study consisted of 345 people. The statistical data was analyzed by mean, percentage and standard deviation.Results indicated that 1) the overall problems of human resource management affiliated to secondary educational service area office found that the condition of human resource management are as follows: (1) performance appraisal, (2) manpower planning, (3) personnel development, (4) personnel management to work, and (5) retaining personnel, respectively.2) Development of human resource management model according to principles of Kalayanamitta of educational institutes affiliated to secondary educational service area office found that there were three components of the model, namely Part one, the leading part consisted of (1) principle, (2) objectives, (3) context of the institute. Part two, the model consisted of (1) human resource management process, (2) seven principles of Kalayanmitta, (3) guideline. Part three, application of model consisted of (1) preparation of operation, (2) operation, (3) performance evaluation.3) Model of human resource managementbased on Kalayanamitta principles of educational institutes affiliated to secondary educational service area office. The overall result was at a high level, considering from high to low and found that the suitability, feasibility and accuracy was at the highest level, whereas in terms of beneficial aspect for implementation was at a high level.

Index Terms—
     Human Resource Management, Kalayanamitta Principles,Educational Institute

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Kopi Caviar Development for Community Participation

Ninusra Mintrasak
Masvinee Salaeh
Putra A.Lare
WattanaTemdee

Abstract:--
Kopi Caviar are considered to be a popular beverage ingredient among young people today. In which the development of the Kopi Caviar has brought the wisdom of Kopi Betong, a drink that is the identity of people in the area. In the past, Betong District was one of the most important Kopi production sites in the Southern of Thailand. As it is delicious and has been produced for a long time. In the research of Kopi Caviar Development for Community Participation, the objective is to develop Kopi Caviar to the commercial market and to develop the participation process of youth towards conservation of Kopi Betong local wisdom. This study was conducted by a group of 30 Ka-Pae-Kor-tor housewives and youth groups in the southern border provinces by using in-depth interview, group conversation and the transfer of operational knowledge techniques. The researchers analyze and synthesizes information by using the analytical techniques and content synthesis.

The results found that the development of Kopi Caviar to the youth market, they do not have knowledge of business management, especially corporate management, accounting and marketing. Including the determination of the selling price that they do not calculate the probably cost of profit. Therefore, the developing business administration knowledge to the youth groups is important. In addition, the use of principles is participation in all processes of activities, will make the business development stronger and sustainable. In the development of youth participation process towards conservation of Kopi Betong local wisdom, Researchers found that the youth are interested in the Kopi Caviar productive process because it is new and modern as well as being popular youth groups nowadays. Moreover, the members of the group brought their knowledge from the cooperation of the Kopi manufacturer to integrate them with learning and organizational development in various fields, including the application of local wisdom to promote income during the study. Therefore, the emphasis should be placed on training young people to practice and learn from real places.

The suggestions for this research are the action to help and develop youth groups to be sustainable is activities which needed to increase knowledge of youth. Youth development activities should be promoted by interpolating cultural and local wisdom. The youth group development process is still a participatory process. In addition, there should be a policy development to educate about increasing income from local wisdom and building a network of youth groups both the public and private sectors to achieve holistic development and lead to the youth development and the inheritance of local wisdom.

Keywords –
Kopi Caviar, Community Participation, local wisdom

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Progressing towards AI based Diabetes Diagnosis services: Current status, applications, developmental barriers and prospects in Maharashtra & Karnataka, India

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Dr. MohitJamwal, Assistant professor, Mittal School of Business, Lovely Professional University, Phagwara, Punjab

Abstract:--
  Diabetes is the major health concerns across the whole world. Increasing at a rapid rate, this global epidemic is affecting a large portion of the populace everywhere. India having the highest proportion of diabetic patients, also becoming the 'diabetes capital of the world'. Early detection of diabetes could help to prevent or postpone its onset by taking appropriate preventive measures, including the initiation of lifestyle changes. AI-based diabetes diagnostic solutions are the new trends that companies are embracing to ensure smooth diabetes care. They provide diagnostic programs to detect complex ailments from medical images. By annotating lesions and abnormalities, these programs assist medical scholars and even non-specialists to have a faster diagnosis with much more accuracy. India faces a chronic disease risk burden. Not just this, many people especially those in the age group of 25 to 40 are also being diagnosed with diabetes &cardiovascular diseases according to Journal of the American Medical Association. This research addresses the existing scenario of AI based Diabetes Diagnostic services available in Maharashtra & Karnataka states in India. Firstly, the geographic location of Maharashtra & Karnataka and its existing Healthcare & Diagnostic status are explained. Then, various policies initiated by the government and the healthcare sectors of private ventures are described. Finally, the future prospects of AI based Healthcare Diagnostics in the two states along with possible strategies to address the barriers and issues are mentioned in this paper.

Keywords:
  type 2 diabetes, diabetes diagnosis, AI based Diabetes Diagnosis, AI algorithms in Diagnosis

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The Effects of Integrated Technology-based Approach and Peer Coaching in Teaching Geometry: A Closer Look at Teachers' TPACK and Students Understanding

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Nuchanart Temdee, Mathematics Education Program, Faculty of Science Technology and Agriculture, Yala Rajabhat University, Thailand

Abstract:--

The technological pedagogical content knowledge (TPACK) framework has been used in teaching widely around the world. However individual teacher may confrontwith difficulties while applying technology in classroom teaching and need to cooperate with others in designing and implementing technology-based lesson for an effective teaching and learning. Peer coaching is one of the cooperating processwhich supports and encourages teachers ingenerating ideas for improving classroom teaching. This research aimed to study on the effects of integrated technology-based approach and peer coaching on teachers' TPACK and students' understanding in teaching and learning geometry in secondary level. The participants were threein-service teachers and one pre-service teacher in Satree Yala school, Muang district, Yala, Thailand who teach geometry in grade 7 and samples were 32 grade 7 students in the school. The researcher employed questionnaire and open-ended question for assessing teachers TPACK, while geometric achievement test was employed to identify students' understanding after learning with the integrated technology-based approach. Data were collected under the peer coaching process for assessing teachers' TPACK during designing and implementing the integrated approach in teaching geometry. Pretest and posttest were given to the students before and after learning with the integrated technology-based approach respectively. Descriptive analysis was used to describe teacher's TPACK while mathematics teacher TPACK standards and development model was used as a lens for examining the teacher's TPACK. In addition, dependent and independent sample t-test were used for study on students' understanding. Findings reveal that the designing and implementing of the integrated approach for teaching geometry under the peer coaching process enabled teachers to enhance their TPACK as well as the students can improve their understanding in learning geometry. The implications of this research are provided along with suggestions.

Keywords :

Technology-based approach, Peer coaching, TPACK,Geometry, Secondary level

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Bird Diversity in Urban Areas, Yala, Thailand

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Jaru Nikom, Southern Border Research and Development Institute, Yala Rajabhat University, Thailand

Abstract:--

This study was a survey of bird species in Muang District, Yala Province. The number and species of the appeared birds were compared during the summer reason and the rainy season from. All of which are classified as endemic species. However, there were two species that were both endemic birds and migratory birds. The most common bird species was in Passeridae family order Passeriformes. In addition, it found that during the summer months, the number of bird species was higher than in the rainy season. Considering the Shannon-Werner Index, birds in the urban area of Yala were low species diversity and abundance as well as each survey month was not much different. Considering the similarity of bird species, these found that the resemblance between the two seasons was less. So, the bird species in each season were quite different. And, the similarities during the rainy season in each month were higher than in the summer. In addition, the relative abundance of birds in the community area were less than in the park. The results of this survey suggest that if in the future the urban ecosystem has increased the population or expanded the size of the city without preserving the trees. As a result, the number and type of birds in the city will reduce.

Key words :

Urban ecosystem, Biodiversity, The Shannon-Werner Index

Formulation of Thai Fried Chili Paste Seasoned Sauce Product for Betong Instant Noodle

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Suteera Srisuk, Department of Food Science and Technology, Faculty of Science Technology and Agriculture, Yala Rajabhat University, 95000, Thailand

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Abstract:--

The purpose of this study was to develop thai fried chili paste seasoned sauce product for Betong instant noodle. Thai fried chili paste formula revealed that the most acceptance formula by consumers composed of garlic, shallot, dried cayenne pepper, coconut sugar, vegetable oil, fish sauce, shrimp paste, oyster mushroom and ripe tamarind in quantity of 15.87%, 15.87%, 3.57%, 21.80%, 14.0%, 9.93%, 3.96%,11.90% and 3.10% respectively. The appropriate quantity studying of Thai fried chili paste containing inseasoned sauce product for Betong instant noodle indicated that seasoned sauce product which composed of Thai fried chili paste compounds in the quantity of 35% of the totally ingredients weight obtained the highest total scores. The ratio study of the Thai fried chili paste seasoned sauce product per rehydrated Betong noodle 117 grams indicated that 50 grams of seasoned sauce per rehydrated Betong noodle 117 grams was the most favorite. The physical characteristics of Thai fried chili paste seasoned sauce product for Betong instant noodle were the color of L*, a* and b* with value of 16.05, 12.22 and 23.01 respectively and the Water Activity (aw) with value of 0.54. The chemical characteristics were 4.27 pH and the quantity of salt, sugar, moisture, protein, fat, ash and fiber were 2.83%, 1.11%, 8.50%, 0.60%, 25.48%, 6.58% and 2.38% respectively. Meanwhile, the result from consumers' acceptance survey revealed that 37.5% of consumers rated "Liked very much" with average score of 7.64±1.34.

Key words:

Product Development, Betong noodle, Thai fried chili paste, Seasoned Sauce, Instant noodle

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Computational Fluid Dynamics (CFD) Simulation of Solar Agricultural dryer

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Abstract:--
　　　　Solar drying is an environmentally friendly and cost-effective method for drying agricultural products. To design a proper solar agricultural dryer for specific products, thermodynamic relations for the agricultural dryer system need to be considered. CFD simulations are commonly used for the design of the dryer. This study presents the simulation of a solar agricultural dryer with the dryer systems are divided into two parts, including a solar panel 200 cm wide, 200 cm long and 20 cm tall, and a drying chamber 100 cm wide, 200 cm long and 60 cm tall. The temperature distribution and air flow pattern in the drying chamber and solar panel were accomplished by the CFD. The results show an average drying air temperature in the drying chamber and solar panel of 64 °C and 67 °C, respectively. This value is suitable for the drying of agricultural products. Temperature differences between the trays and across each tray were found to be small. With regard to the simulation results, in general, it can be concluded that the simulated dryer conditions are appropriate for drying agricultural products.

Keywords—
CFD Simulation, Agricultural products, Solar dryer.

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Approaches to Developing Future Teacher Leadership to Enhance Students' Human Value Creating Global Citizenship

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Abstract:--

This research aims to: 1) study the present and desirable states and priority needs of future teacher leadership development; 2) propose approaches to developing future teacher leadership to enhance students' characteristics based on the human value creating global citizenship concept. This study used a mixed-method approach. The sample population comprised 220 volunteer student teachers, 68 school administrators and teacher mentors, plus 16 experts, totally 304. The research instruments were questionnaires and interviews, plus an evaluation form. Data were analysed by frequency, percentage, mean, standard deviation, Modified Priority Needs Index (PNIModified) and content analysis. The research findings reveal that there are 4 future teacher development main approaches: 1. Develop student teachers' personal growth to be the role models coaching students to conduct knowledge and wisdom-based lives and to respect human value in themselves and others; 2. Exalt student teachers' leadership competency to be the role models having a service mind, equipping students with team working skills and social justice-based interaction capacity; 3. Cultivate a model teacher's spirituality in student teachers to support students to conduct their lives based on sufficiency and sustainability; 4. Enhance student teachers' potential to become the model researchers endowing students with dialectic critical thinking through proactively practical guidelines.

Keywords:

Future teacher leadership development; Students' characteristics based on the human value creating global citizenship concept; Student teachers.

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Synthetic Light-Curve Analysis of a Short Period Binary System YY Eri

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Abstract:--

YY Eri,the short-period binary system, is a W UMa type of the eclipsing binary system. This study using a 0.7-meter telescope with CCD photometric system in B V and R filters. It was observed at the Regional Observatory for the Public, Chachoengsao, Thailand on December 5, 2018, UT. The MaxIm DL software was used to analyzed the images photometry to produce the light curve. The Wilson-Devinney technique was computed the synthetic light curve that prefer to the physical properties of the YY Eri. The results show that the effective temperature of the primary and secondary star was 5533and 5598 K, respectively. The inclination is 81.450 and the mass ratio is 0.55. The degree of contact was calculated as 16.64%

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Pollen Resources Partitioning of Stingless Bee Species (Tetrigonaapicalis (Smith))(Hymenoptera:Apidae) from the Saiburi, Pattani, Thailand

Isma-ae Chelong, Major of Biology, Faculty of Science Technology and Agriculture, YalaRajabhat University, Thailand

Shamsul Bahri Abd Razak, Department of Agrotechnology, Universiti Malaysia Terengganu, Malaysia

Abstract:--

This is the first foraging plant and palynological study using pollen stored by *Tetrigonaapicalis* (Smith)(Apidae: Meliponini) in the Saiburi, Pattani, Thailand. The samples were directly collected from the pollen pots of *T.apicalis* (Smith)species in apiaries located in the Pattani province. The samples were dried, weighed, diluted in warm water and ethanol, centrifuged and then processed using the acetolysis method. After mounting the pollen samples on the glass slides, we identified and counted at least 500 pollen grains per sample. The results show that the main and dominant pollen (over 10%) combinations in the pollen pots of *T. apicalis* (Smith) include pollen from *Cocosnucifera* L., *Elaeisguineensis*Jacq,*Manihotesculenta* (L.) Crantz),*Areca catechu* L., *Cyrtostachysrenda* Blume., *Antigononleptopus* Hook.&Arn.,*Mimosa pudica*,*Talinumpaniculatum* Gaertn., *Tridaxprocumbens*, *Turneraulmifolia* L.,*Senna siamea*, *Asystasiagangetica* (L.) T. Anders.,*Coccinia grandis*, and *Ixoragrandifolia*, respectively. This result, we can use data for present to the stingless bee farm in the future.

Keywords—

Stingless Bee, Pollen Resources, Tetrigonaapicalis (Smith),Foraging Plant

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The Relationship between Airline Ground Service Capability and Cultural Tourism Motivation in Chiang Mai

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Abstract:--

The purpose of this study is to examine the relationship between Airline Ground Service Capability and Cultural Tourism Motivation in Chiang Mai is to study the relationship between Airline Ground Service Capability and Cultural Tourism Motivation to draw tourists to Chiang Mai by air transportation. This study is a quantitative research with a population of 2,000 tourists. The researcher studied about the tourists who would travel to visit Chiang Mai by air transportation and also conducted the study about the airlines traveling to Chiang Mai International Airport, Chiang Mai, The researcher used the simple sampling technique for the research conduction and the data were collected from 350 tourists randomized at Chiang Mai International Airport, during December 2019-February 2020. The tool used to collect data was a questionnaire with the discrimination from.32 to .79, and .89 reliability that was used in the data analysis. The research statistics used here also were means, t-test, and Pearson's simple Correlation Coefficient. The research results found that the level of Airline Ground Service Capability is the satisfaction level and Cultural Tourism Motivation in Chiang Mai is very satisfied. The researcher also found and Cultural Tourism Motivation in Chiang Mai is at the high levels with significant difference at the .01 level and the correlation coefficient is at 0.85.

Key-words:

Airline Ground Service Capability Cultural Tourism Motivation Chiang Mai

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Development the Indicators of Learning and Innovation Skills for Students at Basic Education: Mixed Methods Research

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Asst. Prof.Dr. ThanyaratChidthaisong, KhonKaen University, Thailand
Asst. Prof.Dr.Dawruwan Thawinkarn, KhonKaen University, Thailand
Assoc.Prof.Dr.Sitthipon Art-in, KhonKaen University, Thailand

Abstract:--
  The objectives of this research are to develop the indicators of learning and innovation skills for students at basic educational level. It also aims to develop the model of learning and innovation assessments for students at the basic educational level. This research is a Mixed Methods Research (MMR) with an exploratory sequential design. It is divided into two phases; the first phase is a qualitative research aims to develop the indicators of learning and innovation skills. The data collection methods in this phase are the in-depth interview from teachers and students, the group interview from the boards, teachers, and students. Observing the activities created by the teachers, in order to divide students into groups, is a process to synthesize their behaviors that is a key part of developing the indicators of learning skills and innovations. Those indicators will be developed by 9 specialists and 25 teachers. The second phase is a quantitative research for developing the model of learning and innovation assessments by using construct validation methods. The population for this research is 1,250 students, who are in primary school and high school, from multistage random sampling method. The other group of population is 250 students, randomly selected from specific special classes and normal classes, will be analyzed using criterion related validity method. The research instruments are self-rating scale questionnaire, frequency, percentage, mean, standard deviation, and correlation, automatically compute by using SPSS program. In addition, LISREL, the confirmatory factor analysis program, is also used in this research. The findings were as follows:

  1. There are 7 indicators of learning skills and innovations indicate 25 behaviors in total. These indicators are divided into groups by skills. First, Critical thinking and problem solving skills have 3 indicators, including logical thinking, evaluating and making decision, and problem solving, indicate 9 behaviors. Second, Communication and collaboration skills have 2 indicators including communication clearly, and collaboration with other, indicate 8 behaviors. Third, Creativity and innovation skills have 2 indicators, including making innovation, and cooperating with other creatively, indicate 8 behaviors.

  2. The results of assessing the learning and innovation skills, from students at the basic educational level in the Northeastern part of Thailand, shows that the average of the skill rating in total is 3.71 which is considered as High (SD=0.55). While the mean of critical thinking and problem solving skill rating is also High (Mean=3.61, SD=0.58). The mean of communication and collaboration skills' rating is High (Mean=3.76, SD=0.61). The mean of creativity and innovation skills' rating is High (Mean=3.75, SD=0.60).

  3. The measurement model of learning and innovation skills for students includes 3 factors; (Critical Thinking and Problem-Solving skills-CTP), (Communication and Collaboration skills-CMC), and (Creative and Innovation skills-CTI). The factor loading in standard score forms of these elements are between 0.93-0.98. These numbers can be used to describe the learning and innovation skills to 87%-96%.

Keywords:
Learning and Innovation Skills, Indicator, Mixed Methods Research

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Digital Leadership Development Model for Private School Administrators of the Saint Gabriel's Foundation, Thailand

Kanyarat Suksaen, Rangsit University
Pratoomtong Trirat, Rangsit University

Abstract:--
　　　The objectives of this research are 1) to investigate the conceptual framework of digital leadership development model for private school administrators of the Saint Gabriel's Foundation, Thailand; 2) to explore the current and desirable states of digital leadership development model for private school administrators of the Saint Gabriel's Foundation, Thailand; and 3) to propose the digital leadership development model for private school administrators of the Saint Gabriel's Foundation, Thailand. A mixed methods research was employed. Research population was 16 schools under the Saint Gabriel's Foundation, Thailand, in 2020 academic year. Instruments were conceptual framework questionnaire, current and desirable states questionnaire, and model propriety and feasibility evaluation form. The analyses involved descriptive statistics i.e. frequency, percentage, mean, and standard deviation; PNI, and content analysis.
The digital leadership development model for private school administrators of the Saint Gabriel's Foundation, Thailand covers 4 elements, namely: 1) Visionary leadership; 2) Digital culture of learning; 3) Improvement for digital information connected management system; and 4) Building excellence in citizenship practice. Development goals comprise 1) Inspiring and integrating vision development and implementation to comprehensive technologies to promote excellence and support the entire organization; 2) Ensuring the learning with a focus on improving continuous digital learning; 3) Allocating time, resources and access for the growth as professional in active technological integration; 4) Leading to purposive change to enhance successful learning goals with proper use of available technologies and resources; and 5) Modeling and facilitating for understanding of social, ethical, and legal issues and responsibility about the developing digital culture.

Partnership Network Roles in Resolving of adolescent Pregnancy problem in the Deep South of Thailand

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Abstract:--

The objectives of this research were to study partnership network roles in resolving of adolescent pregnancy problem in the deep south of Thailand.The sample group is students. Parents of students, teachers, religious leaders, and local government leaders, each group of 10 people, a total of 50 people. An interviewing guideline about partnership network roles in resolving of adolescent pregnancy problem was considered by 5 public health experts, the index of consistency (IOC) was 0.90. The researcher collects data by focus group and in-depth interviews during 1sJune-July 2019. Data analysis uses content analysis. The result of the study found that the partnership network rolesof resolving model of adolescent Pregnancy problem in the Deep South of Thailand including 5 partnership networks arereligious leaders, community leaders, parents, teachers and youth leaders have the following roles: 1)A leading youth leader and parent leader in sex education and adolescent counseling(Friends rely on friends) or (Family relies on)2) Educational institutions should include a sex education course as a short-term course based on religious principles3) Community leaders or local leaders should be the primary agency responsible for recruiting target groups into activity participate 4) Religious leaders are responsible for educating the religious principles established for sexual behavior and activities to focus on the changing values and behavior of youth to handle problems correctly 5) All organizations should push into a model community.

Index Terms:

Partnership Network Roles, pregnancy prevention, adolescents,Deep South of Thailand

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Theinevitable change in nature: Experiment on textured effects in textile art inspired by acoincident between Buddhist teaching and the theory of science

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Asst Prof. VeerawatSirivesmas, Faculty of Decorative Arts, Silpakorn University , Phranakorn 10200, Thailand
Prof.Ekachart Joenurairatana, Faculty of Decorative Arts, Silpakorn University , Phranakorn 10200, Thailand

Abstract:--

This paper has question on the change in nature. Buddhism teach about the awareness and perceived the truth in life, by instead of eyes but mind,at the moment of change.On the side of scient theories is tangible illustrated to describe the moment of change.The aspect of change in nature's system in the research aims to, demonstrated a coincident between Buddhist teaching and the theory of science as the expressed subjective tools to narrate the aspect of change in textured textile appearance. To capture the change in appearance like the slowly growth and changes in flowers, has been hard for catching the moment of change by our simple eyes. Some theories of science such as Moire' or/and Quantum physics theory can describe this change intangibility. As the textile art practitioner, the researcher, express the aspect through materials and process of textile weaving. The methods of this research, in textile making, used the traditional ikats to weave the illusion of pattern using the theory of Moire'. Two different wefts ikats are alternated weave in the same one with high twist yarn, the powerful yarn characteristic for making textured effects in fabrics. When these two patterns of ikat had been woven, the resultant appearance was unpattern showed but noised pattern has appeared. The contextual in this design art is to express the aspect in between Buddhist and scientific theories explanation. The result of noised pattern appeared in textile appearanceis difficult to see what pattern illustrated at a glance. The deeply intend to look at the details possible to see hidden pattern in this handwoven. Therefore, as the results of the experiment is reinforcing that the constancy in change as the growth, of such like flower's change, is to be disappear which inBuddhist teaching has the point to aware of the impermanence in life.

Keywords:

textured effects appearance, textile art, inevitable change, Buddhist teaching, Moire

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COMPUTER ENGINEERING CURRICULUM NEEDS Assessment: as perceived by industries in zamboanga city

Marvic Agustin Lines, Western Mindanao State University

Abstract:--

   This study explored Zamboanga City industries' needs regarding the technical and non-technical skills that computer engineering graduates should possess. The results also served as inputs to redesign the Bachelor of Science in Computer Engineering (BSCpE) curriculum of Western Mindanao State University (WMSU). A descriptive-quantitative study was conducted among ICT heads of different private and public industries in Zamboanga City through a survey questionnaire. The results revealed that it is vital for computer engineering graduates to possess technical skills such as software development, system and network administration, technopreneurship, and non-technical skills. The private and public sectors also listed other skills that are very important for computer engineering graduates to have. These include demonstrating SQL knowledge, configuring, managing, and maintaining servers, pitching business ideas, and managing stress. The findings also showed that compared with the private sector, the public sector considers software development and system and network administration skills to be very important for computer engineering graduates. Moreover, the private sector's needs in terms of technical and non-technical skills have no significant difference from the public sector's needs, except for technoprenuership. Overall, industries in Zamboanga City recommended system and network administration and software development skills to emphasize the BSCpE curriculum design.

Index Terms

   computer engineering, technical skills, non-technical skills, curriculum

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The Study of Lessons and Searching for Model-Driven Development of the Buddhist Monks' Health under the National Health Security System

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Phramaha Prayoon Chotivaro, Mahachulalongkornrajavidyalaya University, National Health Security office (NHSO), Thailand.

Dr.Phrakhru Pipitsutathorn, Mahachulalongkornrajavidyalaya University, National Health Security office (NHSO), Thailand.

Phawinee Boonjanda, Mahachulalongkornrajavidyalaya University, National Health Security office (NHSO), Thailand.

Abstract:--

The purpose of this research project was to study the lessons and searching for the model-driven development of the Buddhist monks' health under the National Health Security System which aimed to study the dimensions of awareness of the right to health insurance,accessing to services, using of services and participation in local or regional health funds of the Buddhist monk network.The research method using in this project was a mixed methods research model, the qualitative data were collected from 4 groups of informants: group 1was monks / novices, group 2 was executives, officials of the National Health Security Office whichfrom central and district area, group 3 wasrepresentatives of the health security fund committee inlocal level, and Group 4 wasrepresentatives of service units and relevant network at the regional level, and the quantitative data were collected from the novices in the Buddhist schools, the general department and collected from the Buddhist monks, 400 people for each groups.The findings of this research project were: 1)the recognition of rights, found the model for training to educate and creating public media butlacked of target audience analysis to receive information and integrating the functions of the Buddhist monk mechanism and the government sector. 2) There wasthe model to access the service and the development of national and area mechanisms to help the Buddhist monks in accessing the right to health services. 3)The model of monks' using their rights to receive health service was available in two forms: the cooperation model between the National Health Security Office in district level with the service unit in the area of responsibility and the model of the monk's health service integrated with the local fund budget, health promotion and disease prevention services at the area level. In particular, the organization of mobile health service units for the Buddhist monks in temples. 4) The model of supporting the monks to participate in health security fund in local or area level which there were 4 interesting patterns.

Keywords:

Buddhist Monk's Health, The National Health Security System

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Factors Affecting College Degree Preferences of Shs Stem Students of the College Of Engineering and Technology of Western Mindanao State University

SALIMAR BENDANILLO TAHIL, Western Mindanao State University

Abstract:--
    The enforcement of the Senior High School (SHS) in the Philippines has caused fear among college programs of higher education institutions (HEIs) such as Western Mindanao State University (WMSU) that they might have a low turnout of enrollees. This research sought to identify factors impacting the college degree choice of Grade 12 STEM students of WMSU concerning the number of enrollees to its college degree programs. Results served as inputs on what measures can be taken by programs with a low number of enrollees. The study employed a descriptive-quantitative research design. Data were collected using a validated survey questionnaire of 160 students. The results revealed that interest factors were considered very influential among the five leading factors. Opportunity and personality factors have influenced students' college degree preference. In contrast, family factors somehow influenced them, while Peer factors have less influence on determining their college degree. The study further revealed that programs that integrate actual work experiences significantly impacts students, thereby boosting their interest in pursuing that program. Students are specifically interested in the career they can get out of their preferred degree. Abundant career opportunities and individual personality ideal to their chosen career have greatly influenced students' decision to select their preferred degree. Students are also aware that family support is one crucial factor that affects their decision. However, no significant difference in the influence of personality, family, interest, opportunity, and peer factors among graduating SHS STEM students. Thus, a comprehensive information dissemination campaign regarding the program – its value, influence, and even employability - must be done by the college units is recommended. Integration of career-related activities in the curriculum and providing students first-hand experiences on how it feels like working in the actual workplace during classroom activities can further boost students' interest.

Index Terms
    senior high school, K-12, college degree preference, influence factors

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Covid-19 Pandemic Experiences of Filipinos across: Basis for the Development of a Coping Program

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Karen Jann M. Aquino, Social and Behavioral Sciences Department , College of Arts and Sciences, Nueva Ecija University of Science and Technology, Cabanatuan City, Philippines

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Abstract:--
The Luzon lockdown due to the Covid-19 pandemic brought varying reactions, emotions and actions to mankind. Fear, uncertainty, and anxiety were experienced by everyone. Only the frontliners were allowed to go out, while everybody was advised to stay home. This research explored and compared the coping strategies of Filipinos across gender and generations, to come up with a coping program for the individuals. One-hundred males and one-hundred females with 50 individuals from each generation (Baby Boomers, Generation X, Gen Y, and Gen Z)participated in the survey and were interviewed online during the lockdown. Analysis of their response showed that their coping strategies were composed of five-psychological-spiritual coping strategies; three-economic-political coping strategies; and three-socialcoping strategies. The psychological-spiritual coping strategy of "praying and keeping in mind to ask God to end Covid-19 pandemic so that people will not suffer" was the top most coping strategy of both male and female Baby Boomers,Generation Y as well as female Generation X and Generation Z respondents, but not to the male Gen X and Gen Z. Significant difference was established between one item of the psychological-spiritual coping strategies and generation category; while no significant difference was established between the coping strategies and gender of the respondents, an indication that male and female equally needs the proposed coping program "Tara, UsapTayo, CASama Mo Ako-SBS Psych Aid", where various programs are continuously implemented in collaboration with other offices of the university, for the stakeholders from various sectors, university-wide and nationwide.

Keywords:--
: Covid-19, Coping Strategies, Gender, Baby Boomers, Gen X, Gen Y, Gen Z, Lockdown

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An Exploratory study on Origin of AI: Journey through the Ancient Indian Texts & other technological descriptions, its past, present & future

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Abstract:--
 For the modern world and our present civilization the invention of the first programmable digital computer taken place in the 1940s, a machine based on mathematical reasoning, this knowledge &ideas inspired few scientists to seriously think of building Artificial Intelligence.. The modern world also knows that a British Polymath, Alan Turing in the year 1950, suggested the concept of decision science, artificial intelligence and machines solving the real world problems. The first commercial, digital & programmable robot was made by Geroge Devol in 1954, the field of AI research was founded at a workshop held on the campus of Dartmouth College during the summer of 1956. But modern world is not aware of the origin of Artificial Intelligence (AI) began back in 8000 to 11000 years, with myths, stories and rumors of artificial beings endowed with intelligence or consciousness by ancient Rishis of India. The seeds of modern AI were planted by classical philosophers who attempted to describe the process of human thinking as the mechanical manipulation of symbols. This work culminated through Knowledge and ideas on many of the technological advancement that we are witnessing today had already been articulated in holy books of Hinduism like The Ramayana, The Mahabharata, The Bhagawatgeeta, The Vedas &Upanishads which were believed to be written 5000 to 8000 years ago (3000 BC – 6000 BC). Those are not only the holy epics of Hindu civilization but the proof of the existence of India. The contents of the Ancient Indian Texts written in Oldest language of human existence 'The Sanskrit' also viewed as 'Natural Language' from modern scientific point of view. Elements of modern science present in the Upanishads and Advaita Siddhanta and the nature of mayaresembles modern scientific awareness. This awareness is further used in understanding human mental processes and the ways to model them contributing to the natural language comprehension field of artificial intelligence.Vedic concepts are suitable as well as necessary for an efficient lead and the future ofArtificial Intelligence (AI). The concept is to bound the man-made machines with the ideology described in the Vedic scriptures, to build a better and smarter world with better machines.Natural language processing with natural language inputs and outputs provides a better human-machineinterface. This paper explores origin of the concept of Artificial Intelligence and its existence in ancient Indian Texts and other technological description with modern scientific proofs of them; also reviews Sanskrit language as a possible natural language input to computers.

Keywords
 Origin of AI, AI in Ancient Indian Texts, Source of AI is India, Veda and AI, Sanskrit in NLP

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Efficiency and Optimization of Bioethanol Production from Bagasse Pretreated By Saccharification and Co-Fermentation Process Using Commercial Cellulase and Saccharomycessp. To Economic Cost Analysis

Adulsman Sukkaew, Renewable Energy Technology Program, Faculty of Science Technology and Agriculture, Yala Rajabhat University, 133 Thesaban 3, Sateng, Muang, Yala, 95000 , Thailand

Abstract:--
The problem of overflowing bagasse in the three southernmost provinces of Thailand as resulting in a negative impact on the environmental system. Utilization of bagasse for bioethanol production was one approached that helps in removal and added value.The objectives of this research are tostudy the optimum conditions for the Saccharification of bagasse with commercial cellulase. The result was found that of cellulase was added at 2.5 Unit with cellulose, hemicellulose and lignin content of 72.35 ± 4.36, 11.05 ± 0.95 and 1.12 ± 0.16 percent, respectively. When analyzing the monosaccharides content of the bagasse solution that was properly pretreated with High-performance liquid Chromatography using C-18 Column and water as Mobile phase with flow rate at 0.4 ml/min. The result was found that the content of Sucrose, Glucose, Xylose, Fructose and Mannose were 45.25, 36.45, 10.32, 4.32 and 2.36 Percentage, respectively.When studying the optimum conditions for bioethanol Co-fermentation.The preparation of bagasse sugar solution with initial sweetness of 20 degrees brix and the use of 10% starter inoculant was more effective than other conditions.The bioethanol content after Co-fermentation was12.76 percentageat 48 hour.After the distillation for 3 cycles of such conditions, it was found that The purity of bioethanol was 32.25, 65.85 and 87.56 percent respectively.After that the evaluation of worthiness of bioethanol production in 5 years for community investment was two years for evaluation of investment, could be the return to operator. Payback period (PB) was 2.65 years.

Keywords
Bagasse , Bioethanol Production, Saccharification, Co-Fermentation Process, Saccharomycessp. , Economic Cost Analysis

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THE PROBLEM AND OBSTACLE OF THE THAI-MALAY MUSLIMS' SMALL AND MEDIUM Enterprises (SME) in Southern Border Provinces of Thailand between 2007-2017

Wanharong Binisris, Assistant Professor, Political Sciences Program, Faculty of Huminities and Social Sciences, Yala Rajabhat University, Thailand

Nadia Payo, Lecturer, Political Sciences Program, Faculty of Huminities and Social Sciences, Yala Rajabhat University, Thailand.

Abstract:--

This research is about the problem and obstacle of small and medium-sized enterprises (SME) in the three southern border provinces of Thailand which is a conflict area. Southern border provinces which are consisted of Yala, Pattani and Narathiwat is a mixed culture of a Thai-Malay Muslim culture. Therefore, this research was to question "what is the problem and obstacle of small and medium-sized enterprises of the Thai-Malay Muslims in the three southern border provinces of Thailand?" The process of this studyincludes 1)the problem and obstacle of proceeding the small and medium-sized enterprises and 2) the basic needs in supporting for the small and medium-sized enterprises.

The sampling groups of SME are from the members of the Office of Small and Medium Enterprise Promotion (OSMEP) who registered as the juristic person for totallingof 97 enterprises inYala, Pattani and Narathiwat. The instrument utilized in this study was a set of questionnaires (responded only 60 enterprises) which is divided into 2 parts: part 1, the general information of SME of the Thai-Malay Muslims in the three southern border provinces of Thailand. Part 2 is the information of perceptions. Also, there is a questionnaire for in-depth interviews with the entrepreneurs totalling 15 people from the three southern border provinces.

The result from this research shown that the respondents totalling a percentage of 86.7 agreed that the source of funds is a problem and aninterruption to the business Followed by the marketing and management.

Index Terms

Problem and Obstacle, Small and Medium-sized Enterprises, Thai-Malay Muslims in the three southern border provinces of Thailand.

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Enhancing Electrochemical Signal Based on One-step Electrodeposition of PANI/PPY/AgNP/GR Nanocomposite on Screen-printed Gold Electrode for DNA Diagnosis Detection

Orawan Thipmanee, Major of Chemistry, Faculty of Science Technology and Agriculture, Yala Rajabhat University, Yala 95000, Thailand

Abstract:--
This paper presents the development DNA sensors based on screen-printed gold electrode (SPGE) for specific and rapid detection of synthetic DNA diagnostic. For the objective of this work, one-step electrodeposition of polyaniline/polypyrrole/ silver nanoparticle/graphene (PANI/PPY/AgNP/GR) was utilized as a new sensing material for enhancing electrochemical signal. The disposable SPGE and cost-effective DNA affinity biosensor based on the single-strand DNA probe tagged with anthraquinone (AQ) as redox indicator and detected the current signal with differential pulse voltammetry (DPV). Briefly, a pretreated SPGE was modified with PANI/PPY/AgNP/GR nanocomposite and immobilized by cross-linking with DNA-AQ probe. The methodology and its efficiency have been proved using cyclic voltammetry (CV). For hybridization between ssDNA-AQ probe and the synthetic target DNA on the SPGE surface was detected by monitoring the current signal from the electron transfer of AQ. Furthermore, SEM observations were performed to observe the surface changes of SPGE after electrochemical deposition. These DNA biosensor showed a good linear target DNA concentration range from 1.0×10^{-15} to 1.0×10^{-11} M with limit of detection at femtomolar. In addition, the disposable DNA sensor could also be regenerated easily and can be reused 45 times for hybridization studied. The developed DNA sensor was found rapid, cost-effective, good reusability for hybridization detection of the synthetic DNA diagnostic and can be used as an excellent tool for future prospective clinical applications.

Index Terms
DNA sensor, Screen-printed gold electrode, Electrodeposition, Redox indicator

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The Performance ofSovereign Bonds and Non-Sovereign Bonds Performance and Their Relation Towards Yields in Malaysia

Noriza Mohd Saad ,Assoc. Prof. Dr.UniversitiTeknologi MARA Cawangan Kelantan at Machang Branch.

Abstract:--
      This study aims to investigates the significant mean different between the sovereign bonds and non-sovereign bonds performance with regards to their facets and to analyze the relationshipof these bond facets towards their yield performance in Malaysia. Secondary data used for such government bond issuances cover the period of 2015-2020. The data will be gathered from Bank Negara Info Bond Hub website and Rating Agency Malaysia (RAM) and others for such a Malaysian government bond facets. The results were shown that there is a statistically significant mean different between these two types of bonds, sovereign and non-sovereign whereby the performance of their facets could be in different patterns depending on fluctuation in price respectively. Besides, there is a significant relationship between the facets of these bonds towards their yields. The outcome of the study provides a reference to stakeholders as well as government as an investment options that provide a permissible return to them.

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Synthetic Light-Curve Analysis of a Short Period Binary System YY Eri

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Chiang Mai Rajabhat University, Chiang Mai, Thailand, 50300
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Abstract -YY Eri, the short-period binary system, is a W UMa type of the eclipsing binary system. This study using a 0.7-meter telescope with CCD photometric system in B V and R filters. It was observed at the Regional Observatory for the Public, Chachoengsao, Thailand on December 5, 2018, UT. The MaxIm DL software was used to analyzed the images photometry to produce the light curve. The Wilson-Devinney technique was computed the synthetic light curve that prefer to the physical properties of the YY Eri. The results show that the effective temperature of the primary and secondary star was 5533 and 5598 K, respectively. The inclination is 81.45^0 and the mass ratio is 0.55. The degree of contact was calculated as 16.64%

1. Introduction

Only around half of the stars that we see when we look to the sky are single stars. The rest are multiple systems, consisting of two or more stars orbiting around each other due to their gravitational attraction. Two stars orbiting each other are called binary stars. Measurements of the dynamical interaction of the components in eclipsing binary stars provide the most accurately determined parameters of stars (Penélope,2015). The Uma binary star are divided into two subtypes W and A. W UMa variables have primary and secondary eclipses of nearly equal depths. The spectral type of subtypes A-type W UMa systems are A-F spectra, and G-K spectral for W-type systems. The period of subtypes A-type W UMa is 0.4 to 0.8 day and 0.22 to 0.4 day for subtypes W-type W UMa (Binnendijk,1965)

The short-period binary system YY Eri is a W-subtype of W UMa type which R.A. 04h 12m 08.849 s and Dec. -10^0 28' 09.993 . The light curve of YY Eri have pattern of variation, with a slightly asysmestry (E. Budding,1997). The mean magnitude of YY Eri is 8.4,a spectral type G5V and the period is 0d.32149510 (C.Maceroni,1994.). Radius velocity of YY Eri is -15 kms^{-1} (R. Nesci,1986.).The value of masses M_h =0.567 M_Θ and M_c =0.967 M_Θ (C.Maceroni,1982.).

For this work, we use the Wilson-Devinney Technique to considers about the physical properties of YY Eri Uma binary star.

2. Experimental

YY Eri was observed 5 December 2018, UT at the Regional Observatory for the Public, Chachoengsao, Thailand. The 0.7 - meter reflecting telescope and CCD with the blue (B), standard visual (V) and red (R) filters of the UBV system were used. The figure 1 showed a sample of the YY Eri image. In this work, TYC 5315-986-1 and HD 26650 were chosen as comparison star and check star. The information of them were shown in table 1. The YY Eri images were analyzed by photometry technique with MaxIm DL program. The Wilson-Devinney Technique was used to calculate the properties of this binary system.
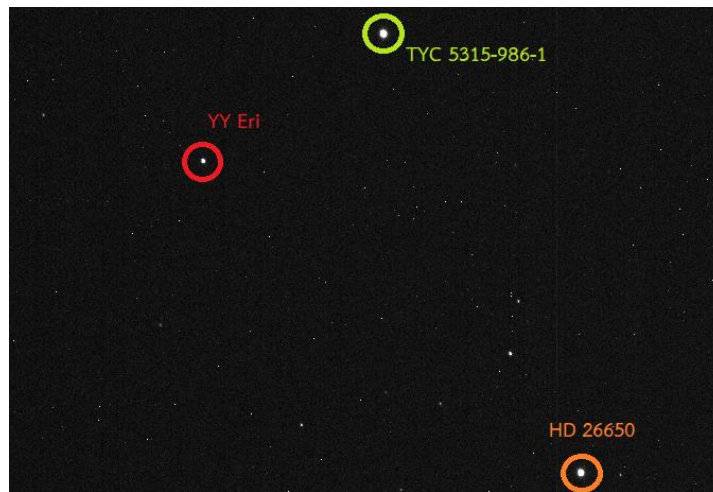
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Figure 1. The image of YY Eri.

Table 1. The basic information of the YY Eri from this observation.

Star	R.A.(h m s)	Dec.(° ' ")	Magnitude
YY Eri	04 12 08.849	-10 28 09.993	8.41
TYC 5315-986-1	04 12 21.364	-10 26 03.797	11.02
HD 26650	04 12 32.596	-10 33 57.865	8.43

The W-subtype binary system is the mass of a secondary star less than a primary star. So, we analyzed the best of the mass ratio $q = m_2/m_1$ from 0.20, 0.30, 0.40, 0.50, 0.60. 0.70, 0.80, 0.90 and 1.00. The relation of the computation error (Σ) and the mass ratio as shown in Fig.2. The best error of the mass ratio from Fig.2 was 0.555882. This value was used for the initial value to calculate the physical properties of YY Eri.
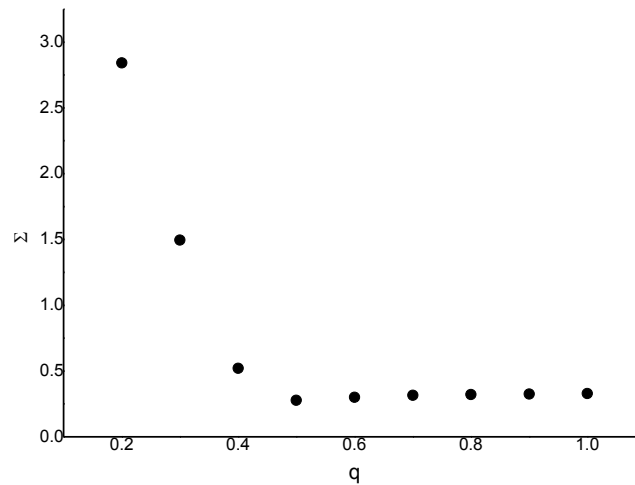
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Figure 2. Variance of the mass ratio q of the YY Eri

3. Results and Discussion

The synthetic light curve of YY Eri, as shown in Figure 3, was constructed from photometric data computation using Wilson-Devinney software. The dot is data from the observation and the red line is data from calculated. The light curve shown that the YYEri is the W UMa type of the eclipsing binary system. The best solution of the YY Eri, as shown in Table 2. The inclination of orbital is 81.45° corresponding to R Nesci et.al.(1985), Y. Yang and Q. Liu (1999). The parameter mass ratio q=0.55582, the surface temperature of primary star (T_1) is 5533 K and the surface temperature of secondary star (T_2) is 5598 K nearly the results of R Nesci et.al.(1985), Y. Yang and Q. Liu(1999), shown that YY Eri are G5 spectral. The gravity of darkening coefficient of primary and secondary star (g_1 and g_2) are equal to 0.32 same to data from Y. Yang and Q. Liu(1999). We see that the value of the gravity of darkening coefficient (g) and the bolometric albedos (A) indicated that the YY Eri are convective envelope stars. Degree of contact of the binary star is 16.64%.

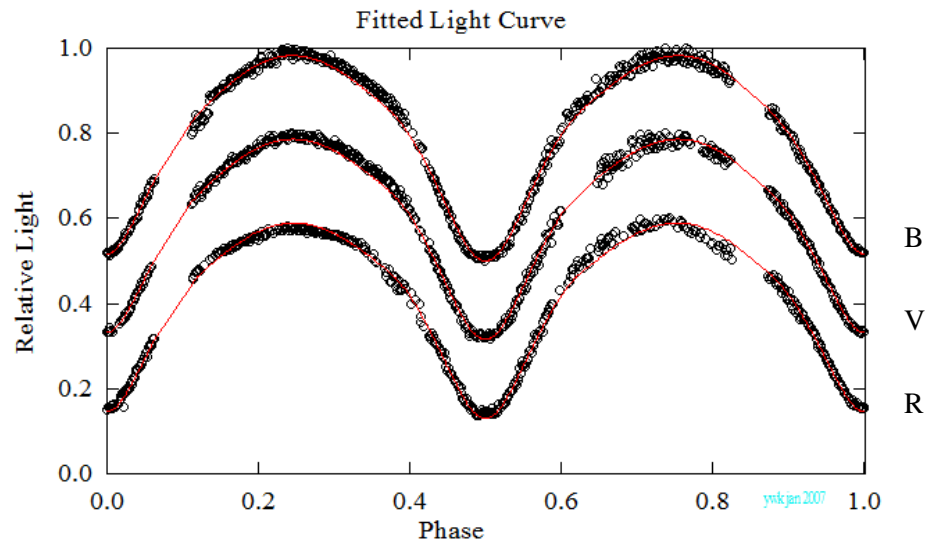**23ʳᵈ-24ᵗʰ January 2021**   **2ⁿᵈ ICMCER – 2021**

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Figure 3. Synthetic light curve of the YY Eri.

Table 2. Parameter for simulate the YY Eri Model.

Parameter	The Best Solution
i	$81.45^{0} \pm 0.10$
g_1	0.32
g_2	0.32
$\Omega_1 = \Omega_2$	2.927108 ± 0.008878
Ω_{in}	2.981722
Ω_{out}	2.653566
T_1 (K)	5533 ± 154
T_2 (K)	5598 ± 146
A_1	0.50
A_2	0.50
q	0.555882 ± 0.005128
$L_1/(L_1+L_2)_B$	0.60955 ± 0.02696
$L_1/(L_1+L_2)_V$	0.61290 ± 0.02520
$L_1/(L_1+L_2)_R$	0.61602 ± 0.02520
Degree of Contact (%)	16.64

The physical properties value from Table 2 were forecasted its binary system model, as shown in Figure 4.

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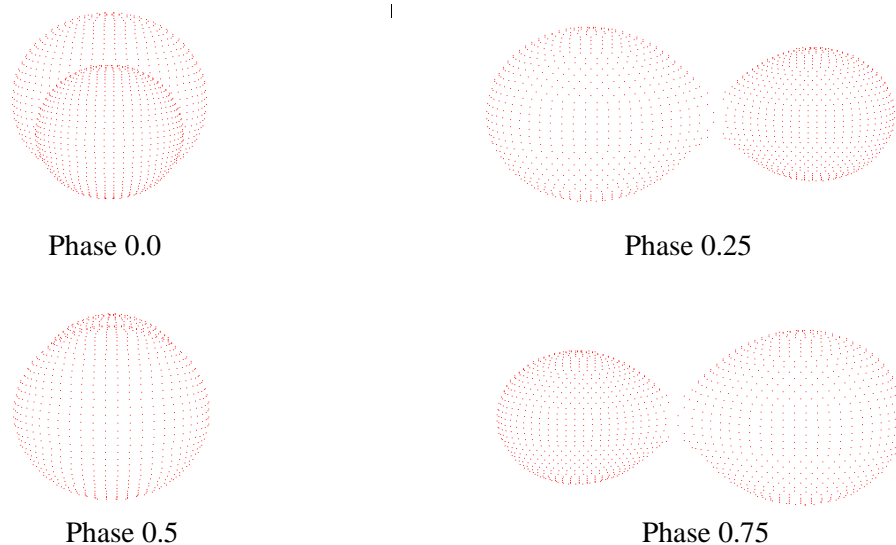
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Figure 4. YY Eri model.

4. Conclusion

The eclipsing binary system YY Eri was observed on December 5, 2018, UT at the Regional Observatory for the Public, Chachoengsao, Thailand and was analyzed at Faculty of Science and Technology, Chiang Mai Rajabhat University, Chiang Mai and Phetchaburi Rajabhat University, Phetchaburi, Thailand. In this research, the physical properties were computed by Wilson-Devinney technique. The solution shows that the binary system YY Eri is a W-type contact binary which a mass ratio is 0.555882 and the degree of contact is 16.64 percents.

5. Acknowledgment

The author would like to acknowledge the National Astronomical Research Institute of Thailand (Public Organization) for this observation.

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