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## **Editorial**

Dear Reader,

Welcome to this edition (Volume 4 Number 2) of the ASEAN Journal of Management and Innovation (AJMI). Since it was launched in 2014 the AJMI has strengthened steadily as evidenced with the achievement on a higher-ranking index from Tier 1 of Thailand Citation Index (TCI) to ASEAN Citation Index (ACI). Also, for each edition there has been an increase of articles received for publication indicating a growing interest among researchers to publish their work in this journal. To continue this growth trajectory, and especially throughout 2018, a key focus going forward will be to continue to strengthen all aspects of the AJMI with the aim of meeting the required criteria for listing our journal on SCOPUS.

In this issue, I am proud to present a high quality of selected articles across the diverse fields of innovative technology for life and business, tourism, education, marketing, finance and social movement. The articles explore research outcomes on a quality of life change for a rural community through the rural electrification by renewable energy and the effective use of mobile instant messaging application tool (LINE) from Thai SMEs. From the tourism domain the research articles outline the determinants that effect agritourist's travel intention toward Agro-tourism, the impact of tourism policies toward the tourist's arrival in ASEAN and competency based training for nursing services in medical tourism in Thailand. In the domain of educational research, the articles reflect on the influence of co-operative education to creativity based on organizational innovation encouragement, the outcome of awareness, access and appreciation of education amongst a working-class background in Bangkok, and the evaluation of requirements of the industry for marketing graduates in Thai universities. Further articles related to marketing present research outcomes on the marketing mix in the human spirit era and the partial least squares (PLS) of social marketing responsibility modeling for Thai entrepreneurs' manufacturing industry. In the financial domain, the articles investigate index futures introduction and spot market volatility (Case of Thai Stock Market), a monitoring tool as selected to support the effective corporate governance of Thai listed firms, the elements influencing trading decisions in case of "Forex Traders" and the evaluation of bilateral investment treaty (BIT) between Thailand and Germany. Also, in this issue we explore the fields of business and social movement. One article outlines the development of a causal model of the competitive advantage affecting performance of SMEs in Thailand. Other valuable articles outline the results of mediating effects of stakeholder collaboration in the relationship between inter-organizational trust and knowledge sharing intention in global supply chain, and a comparative study of women in the mining community in Thailand and Laos.

Any success of the AJMI will not be possible without the continued support from our authors, readers, reviewers, and editorial board members. Therefore, I would like to express my gratitude to all who have supported our efforts in the production of the AJMI. Your reflections and comments are always welcome and please forward such along with any further academic contributions to: [research@stamford.edu](mailto:research@stamford.edu) and/or visit the website: <http://ajmi.stamford.edu>.

Thank you for your continued support of the AJMI.  
Sincerely yours,

Apitep Saekow, Ph.D.  
Editor in Chief  
ASEAN Journal of Management & Innovation

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# Study on Quality of Life Change for Rural Community through Rural Electrification by Renewable Energy: Preliminary Result

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## Abstract

Change in the energy usage pattern and the quality of life (QOL) before and after electrification of rural villages under different rural electrification schemes are being studied to access the significant achievement of rural electrification. Several rural villages in Sarawak, Malaysia, have been identified, where some of the villages are remained in non-electrified conditions mainly due to their remote geographical location. We have selected four Iban communities with different rural electrification plans, so far. Interview based study has been carried out since 2016. A preliminary result of a survey on QOL for 33 villagers from 20 to 71 years old indicated that 90% villagers are satisfied with their lives.

They are in good health both in physically and in mentally. However, personal activities are at very low level, because their access to transportation is very poor. The project has just been started and SHSs installation in one village will be finished soon. The other village will be electrified by the grid extension. We will monitor the villagers' energy usage patterns and QOLs under the different electrification schemes. The project outcome will contribute to establishing the methodology of renewable energy implementation and to the social acceptance of renewable energy.

**Keywords:** Renewable Energy. Lifestyle, Quality of Life (QOL), Sarawak, Rural Electrification

## Introduction

Energy is indispensable for the development of human society (e.g., IEA, 2002 and UNDP, 2005). In this line, "Energy for all" (IEA, 2011) is issued and adopted as Goal 7 in Sustainable Development Goals (SDGs), because there are 1.06 billion people, predominantly rural dwellers, still function without electricity (UN, 2017). To provide basic household electricity with renewable energy (RE) systems, such as solar home systems (SHSs), is considered one of the solutions in remote villages where the grid power is not economically feasible. However, a fair number of the rural electrification projects have been observed to be unsustainable, due to various reasons (e.g., Urmee T, 2016). One of the reasons would be that the projects tend to address the supply side issues, rather than to improve productivity and income of the rural communities. The evaluation of World Bank rural electrification projects found little evidence of direct impact on income generation or economic growth (World Bank, 2008.). The other example of the highly successful SHS program had only modest impact on the villagers' income generation (e.g., Rahman SM and Ahmad MM, 2013).

Therefore, it is important to study the impacts of the electrification in rural communities, and many studies have been performed starting from the grid power extension scheme (e.g., Barns D.F., 2014, Brassley P., 2017) to renewable energy schemes (e.g., UNEP, 2006). However, there are not many numbers of studies on the impacts in villagers' lifestyle and economic "before and after" their electrification that will bring more clear information on the impacts of electrification. Therefore, we have started the project aims to study the energy usage pattern and lifestyle "before and after" rural electrification for a rural community in interior Sarawak, Malaysia since 2016. Malaysia, as one of the leading developing nations in South East Asia, has been enjoying a good coverage of electricity compared to her neighboring countries. Nevertheless, the electricity coverage has not been equal throughout the country. In 2009, the electricity coverage in the state of Sarawak was approximately 67%, which is relatively lower than the Peninsular Malaysia (99.5%) and the state of Sabah (77%) (Fadaeenejad M., 2014).

According to the data published under the Government Transformation Plan (GTP), Malaysia government aims to increase the electricity coverage in Sarawak from 82.7% in 2012 to 95% by 2015. In line with this effort, Sarawak Energy Berhad (SEB), the state utility, has been responsible for improving the electricity coverage in Sarawak, including the implementation of small-scale rural electrification projects using hydro-diesel and solar-diesel hybrid system (van Gevelt et al., 2017), with varying degrees of success.

Several rural villages in Sarawak have been identified for this project, where some of the villages received electrifications via renewable energy sources, (particularly SHSs), some are in the process of being electrified through grid extension, while some others remained non-electrified due to their more remote geographical locations. These villages are chosen based on their accessibility, co-cooperativeness and the potential for electrification to study the impact on the energy usage pattern and QOL by the different electrification schemes (such as a grid extension scheme and SHSs scheme).

We have interviewed four villages in Sarawak so far and are planning to extend our study sites to increase the monitor samples and to include the other renewable implementation scheme villages as well as different countries, Myanmar and Cambodia. This paper report on our preliminary result of QOL survey on four villages before different electrification schemes in Sarawak, Malaysia. Based on the findings on the differences and similarities between the energy usage pattern and QOL of the villages under different rural electrification schemes, more effective approach to implementing rural electrification can be deduced.

## Methodology

To measure the lifestyle of the rural villagers, a face-to-face interview based investigation has been carried out in this study. The concept of the quality of life (QOL) and the energy usage pattern are used to quantify the villagers' lifestyle. In general, QOL is measured by health, education, personal activities, political voice and governance, social connections, environmental conditions, personal insecurity (J. E. Stiglitz, 2009). We have been using the Wisconsin QOL indicators (M.A. Becker, 2014) as the questionnaire which consists of "General Satisfaction Level", "Activities and Occupations", "Psychological Well-Being", "Symptoms/Outlook", "Physical Health", "Social Relations/Support", "Money", "Activities of Daily Living", "Goal Attainment".

The system model developed to assess QOL in this research is depicted in Figure 1.

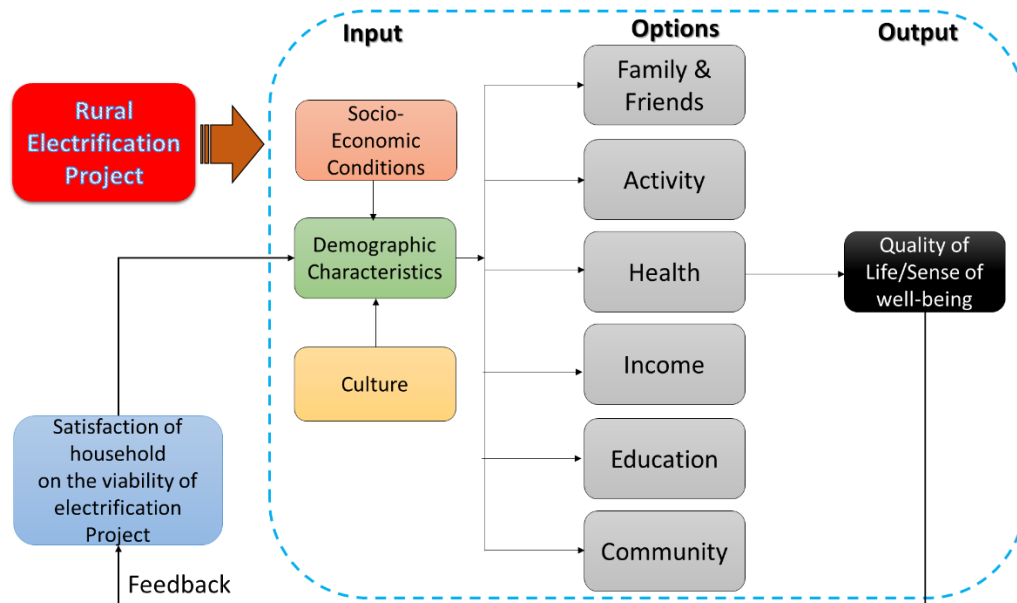


Figure 1. System model developed to access QOL in this research

We also added some energy-related questions, such as electrical appliances, current electricity condition, daily energy usage pattern, energy demands, to assess the villages' energy access improvement. The external conditions of the village, such as transportations, schools, hospitals, also recorded. Figure 2 depicts the procedure of this research. As shown in fig. 2, we plan to design and implement a renewable energy system based on the energy demand, renewable energy resource condition, and available budget, if the villages have no ongoing plan of electrification. The implementation of the renewable energy system will be reported in our future paper. The villagers' interview will be continued to study how their QOL will be changed after different electrification schemes. At the end of the research project, we will analyze the result of the interviews to find differences and similarities between the energy usage pattern and QOL of the villages under different rural electrification schemes and more effective approach of implementing rural electrification will be proposed.

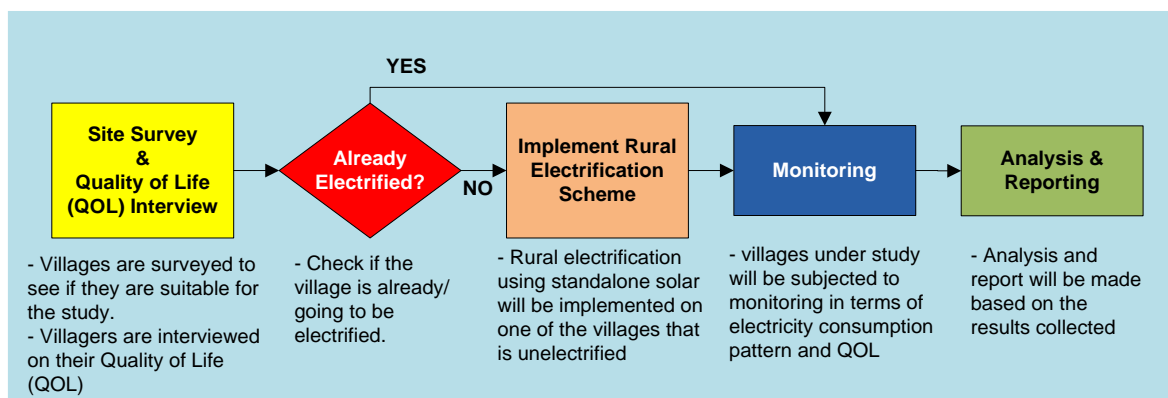


Figure 2. Procedure of the research

## Iban Community

The Iban is the largest indigenous group in the state of Sarawak, Malaysia, constituting approximately 29% of the total population. Though modernization had driven many of the Iban to gain their living in the urban areas, there are still some communities that stayed in the rural areas of Sarawak, defending their traditional lifestyle as animistic farmers and forest gatherers. One unique feature of the Iban community is their close-knitted society, evidenced by the tradition of staying in the *rumah panjang*, i.e. longhouse, which can be regarded as a village under one roof (Taschi Tsering Sim, 2014). A longhouse usually consists of multiple compartments, also known as *pintu*, each of which houses an Iban family, all banded together under the leadership of a *tuai rumah*, or village head. While traditional longhouse can have several tenths of families, modern Iban village usually consists of several units of smaller longhouses, while maintaining the *tuai rumah* culture. So far, four Iban villages have been surveyed, namely Menangkin, Tabong, Jenggin and Kampung Sungai Merah. Figure 3 shows the location of these villages and their electrification schemes are shown in Figure 4.



Figure 3. Location of the studied villages

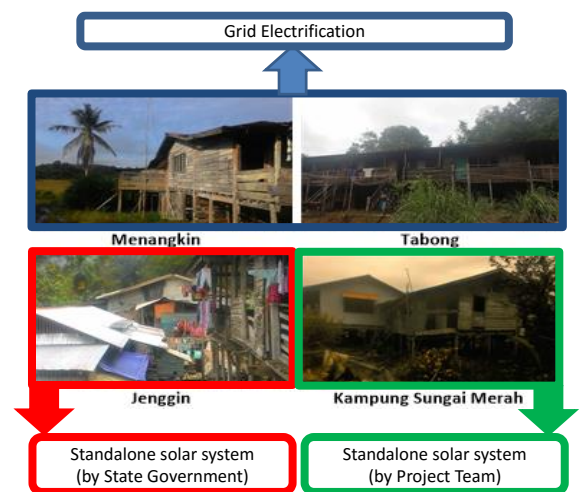


Figure 4. Electrification scheme of studied villages

## Preliminary Result and Discussion

The face-to-face interviews have been conducted with 33 villagers, ranging from 20 to 71 years old from April 2016, to February 2017. The local language was used during the interview sessions. Based on the survey conducted so far, the following findings have been made on the villagers' QOL:

- Most of the villagers (75%) have received education only up to primary school level
- Their incomes are lower than average (RM 3,831/month) and about 60% villagers are satisfied with their condition (Fig. 5)
- 90% villagers are satisfied with their lives (Fig. 6)
- They emphasize on the importance to connect with neighbors, and are in good health/mental conditions.

- Personal activities, i.e. watching movies or going for shopping, are at very low level because their access to transportation is very poor.

The interview result shows a uniformity in their answers as well as their life-style. It is predicted that once they will get the electricity, their life-style will show more variety. It should be noted that all villages have their generators, mostly 6 Hp (4.5 kW) type to supply electricity in the evening time. The running time is 2-3 hours/day in average during the interview period. However, condition depends on the economic situation of the family. These villages have already been electrified to a certain extent, and villagers know how to use electricity.

However, most of the villagers are keen to obtain electricity from renewables or the grid line, because of high cost of the fuel and maintenance of the generator. In addition, the generated power has been used only for lightings, fans, and TVs. Based on the interview, we noticed that there is almost no idea to use the electricity for business purpose. This may be originated from their education level, limited accessibility of markets, and their living satisfaction.

Menangkin, Tabong are in the process of being electrified through the extension of the power grid while a few houses in Jenggin have just been installed SHSs. Kampung Sungai Merah has not had any sophisticated electrification plan. Therefore, we decided to install SHSs at Kampung Sungai Merah in this project (Fig.4). The installed system included 5 SHS systems, each containing a PV panel, a solar charge controller, battery and an inverter. The specification of each component is listed in the Table 1.

These parameter were selected to full-filled the total energy consumption of the whole village, 3.97 kWh/day. Two types of systems were used, one running on 12V battery the other uses 24V (two series connected 12V) batteries depending on the size of family.

The total cost of the SHS system is about 6,000 USD excluding the transportation fee and the installation fee. We will continue the interview sessions for these villages to study how these different electrification schemes can affect the changes in their QOL. In addition to the QOL

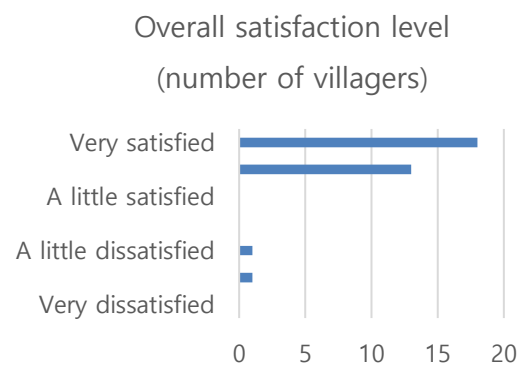


Figure 5. Overall satisfaction level of villagers



Figure 6. Satisfaction level in income



interview, the electricity consumption pattern will be monitored in a few families to understand how the rural electrification schemes change the way the rural communities consume electricity, and how the change in electricity consumption pattern is beneficial to the communities.

Table 1. Specifications of SHS components installed in Kampung Sungai Merah

Item	Specifications
<b>PV Panel</b>	305W, $V_{mpp} = 37.8 \text{ V}$ , $I_{mpp} = 8.34\text{A}$ , $V_{oc} = 45\text{V}$ , $I_{sc} = 8.85 \text{ A}$
<b>Battery</b>	AGM sealed lead-acid battery, 12V, 150Ah
<b>Inverter</b>	Stand-alone type, 200W, Input: 12/24 V, 20/10 $A_{max}$ Output; 230V 50Hz
<b>Solar charge controller</b>	PWM-type 12/24 V, 20/10 A

## Summary

The aim of the project is to study the lifestyle, which will be measured by energy usage pattern and QOL, before and after rural electrification of rural communities in interior Sarawak, Malaysia. Through surveying the differences and/or similarities between the energy usage pattern and QOL of the villages under different rural electrification schemes, an effective approach of implementing rural electrification will be proposed. One of the most critical issues of the rural electrification scheme is always its sustainability. Over the years, many projects have been rolled out by the government or NGOs to provide electricity to rural communities, but a large portion of the systems tends to breakdown soon after the external support ended.

It is anticipated that the finding from this project can provide a better understanding of the impacts of rural electrification schemes to rural communities and methods to improve the sustainability of such schemes. We have conducted interviews in 4 rural Iban villages in Sarawak, Malaysia, where several villages are not connected to the grid power. Two villages among them will be connected to the grid, one village has SHSs in partially, and we will install SHSs in the one village within this project. The QOL analysis shows that the lifestyle of the villagers is a typical monoculture style and most of them are satisfied with their lives even under low-income condition. We will continue the interview session for these villages to investigate how different electrification schemes will make different changes in QOLs and the pattern of the electric usage. We are also planning to increase the study site to obtain a good statistics and different renewable energy schemes.



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# The Development of Causal Model of the Competitive Advantage that Affects the Performance of SMEs in Three Province, Thailand

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## Abstract

This study aims to (1) study the causal relationship of competitive advantage, and (2) the relationship between the competitive advantage and performance. The population in this study were the small and medium enterprise in Buriram, Surin and Sisaket province. The representative sample for this research was a small and medium enterprise totaling 400 subjects which were selected by multi-stage sampling method. Data was collected by questionnaires distributed during April-June 2016 and 400 questionnaires were returned or being equal to the response rate 100%. Data was analyzed by Structural Equation Modeling: SEM. Findings from the research suggested that: (1) Factors directly influencing the competitive advantage consisted of intellectual capital, innovation, and dynamic capabilities, and (2) competitive advantage showed direct positive influence on performance.

**Keywords:** Competitive advantage, Performance

## Introduction

The competitive advantage was the unique characteristic that the competitors cannot imitate or it takes some periods of time to make a good understanding of our true performance such as, innovative imitation, the game or internal administration or what one organization can do better than others (Tuan & Yoshi, 2010). The basic factor to gain an advantage is knowledge which is gained from the company staff's experience and competency and then they developed into intellectual capital. The organization would find the way to draw the true ability from its staff to improve products or service to be outstanding and different or integrate all knowledge in the field to develop innovations for its own. This made the organization notable because of the new things they have created (Weerawardena & Mavondo, 2011). Besides, the innovation must have been continuously initiated because of the changeable situation (Hurley & Hult, 1998). The innovation is dynamics capabilities (Weerawardena & Mavondo, 2011). The advantage may have come from the asset or the resources the organization has (De Lara & Neves Guimaraes, 2014).

This study was conducted based on RBV (Resource-based View) to investigate the cause of competitive advantage and the overall operation. Resource-based View was the key to develop competitive advantage (Safarzadeh et al., 2015) from an organization's factors and verify academic theory of competitive advantage from many professionals in the field, and the implementation of organizational resources and abilities (Glavas & Mish, 2015) to understand the key factors of competitive advantage which consisted of (1) knowledge which was considered as the key factor of competitive advantage (Kamukama et al., 2011).

It was related to many studies indicating that knowledge was critical to develop competitive advantage such as the study from Khalique & Hassan (2014), Papula & Volna (2014), Khalique et al. (2013), Jardon & Martos (2012) and Martin-de-Castro et al. (2011) etc. The knowledge is how to apply wisdom to value products and service so it is critical to economy (Kattiya & Suvajittanon, 2012). It was also important to make good business benefits. The organization needed to apply knowledge to create innovation (Weerawardena & Mavondo, 2011). It was particularly important for SMSs to lead to them to success (Khalique & Hassan, 2014). The idea accorded with Jardon & Martos (2012) stating that the knowledge is crucial for SMEs and it made them able to survive under the competitive situation (Kattiya & Suvajittanon, 2012).

The knowledge was the most important for common business and SMEs and it enhanced the performance of the SMEs owners. (2) The innovation enhanced the organization's ability to survive under the rapid changeable situations (Martin-de-Castro et al., 2011., Klimas, 2014) and it was the major factor for success especially, SMEs (Raymond & St-Pierre, 2010., Aini et al., 2013). It influenced the operation. The organization needed to create innovation to deal with the inconstant situations (Klimas, 2014). The innovation was also the major factor for competitive advantage (Yasin et al., 2014). This accorded with De Lara & Guimaraes (2014) that the competitive advantage influence came from the innovation. Apart from that Kamboj Rahman (2014) stated that the innovation has a big impact on competitive advantage (3). Dynamic Capacities were critical to competitive advantage (Corte & Gaudio, 2012). They are related to many of the studies. They were presented as a new idea and the foundation of competitive advantage (Teece, 2009). It completed RBV that it only aimed to control the resource but not to find the new ones or to extend its further capabilities.

Dynamic capacities are the tool for purposely applying the resources (Corte & Gaudio, 2012) by connecting the organization capabilities, applying the capabilities between internal and external (Teece, 2014) to accompany with the change of the environment, seeking the chance and combining the resources and knowledge to exceed the limit of new capabilities (Corte & Gaudio, 2012). It would affect the value of the organization and can lead to competitive advantage and supply the product or service for the customer better than the competitor (Li & Liu, 2014). They make the organization survive and grow (Capron & Mitchell, 2009).

In terms of competitive advantage with performance, the literature review found that competitive advantage was correlated with business performance (Wang, 2014) because the competitive advantage was the basis of higher operating performance (Rose et al., 2010). If the business had a comparatively low competitive advantage, the performance will decline. That showed the relationship between the competitive advantage and the performance of a business. In addition, performance was also concerned with the quality of sustainable competition (Su et al., 2014). So this research focused on developing a causal relationship model of competitive advantage that affected the operation of a business. This would enable us to understand the factors that affected the competitive advantage by having good performance of SMEs in Thailand. This would lead to the creation of value for the enterprise allowing enterprises to compete and survive under current circumstances and it could be applied to other business groups.

## Objectives

1. A study of the causal relationship of competitive advantage.
2. The relationship between the competitive advantage and performance.

## Methodology

### The subject of the study

This study was quantitative research that provides broad, empirical data that can be applied to all areas to check with the theoretical framework set forth by the researcher based on the principles, concepts and theories to get the findings on key issues. The researcher collected data using a questionnaire with business owners, managers, supervisors or related employees of SMEs in Buriram, Surin and Sisaket, Thailand, in 2014 from 128,516 sites (Office of Small and Medium Enterprises Promotion, 2016). We determined sample sizes that are suitable for data analysis with the LISREL program by using the Structural Equation Modeling (SEM) statistical technique. The sample size must have been 20-10 for each variable in the research (Angsuchote et al., 2015).

In this research, the researcher had variable observations in 16 models. So the sample size was appropriate and sufficient and it should have 320 (20 x 16). In addition, collecting data by mailing and meeting questionnaire at the establishment. In order to get the proportion of questionnaires responded to, the researcher collected 400 samples. Therefore, the sample size used in this study was 400. The researcher used multistage random sampling method because the population in the study was large. It was important to select the sample of the largest size. Then we selected sub-sample to the minor level and did this to the desired level (Kattiya & Suvajittanon, 2012). The population was divided into sub-groups in sequence.

### **The tools of research**

The questionnaire can be divided into 6 parts: 1) general information of respondents 2) intellectual capital 3) innovation 4) dynamic capabilities 5) the competitive advantage and 6) the performance. The creation of research tools; The researcher studied the related theoretical and literary concepts to define the operational definition and structure of the variables the researcher wanted to study. The researcher then created a questionnaire based on the operational definition that the development of the instrumentation and the questionnaire has been created to fit the research. And the researcher brought the questions that were developed to the experts to examine the content validity of the questions from the study of related theoretical and literary concepts, both domestic and foreign literature.

When the expert examined the content of the questionnaire. The researcher modified the questionnaire to produce a draft questionnaire. After that, the researcher took the questionnaire to test validity by using the questionnaire developed by the researcher for 5 experts to find the index of correspondence between the question and the objective (Index of Item Objective Congruence: IOC). The content validity of the questionnaire was 98.0, which was considered in the criteria ( $IOC > 0.50$ ) (Kanjawasee, 2012).

This shows that all questions in the questionnaire matched the questionnaire with the characteristics of the research objectives to be measured, content validity and suitability and cover the content that the researcher wanted to study. It could be used to collect data. The reliability of the questionnaire was tested by 30 participants. This is not a research sample. The reliability of the questionnaire was 0.973. The reliability of the questionnaire and questionnaire with the  $\alpha$  value of 0.70 and above was considered to be the confidence question (Kattiya & Suvajittanon, 2012).

### **Statistics used in data analysis.**

The researcher has conducted statistical analysis that is appropriate and consistent with statistical data to meet the purpose of the research set. The statistics used to analyze the data are four parts.

**Part 1** Descriptive statistics used to describe the attributes or properties of the distribution of variables. According to the characteristics of the group, percentage, mean, and standard deviation were used to determine the basic statistics of the observed variables.

**Part 2** Statistical analysis of Relationship between variables for the analysis of relationships between variables: Pearson's Product Moment Correlation Coefficient (Pearson's Product Moment Correlation Coefficient was linear. We can identify the direction of the relationship. (positive or negative) and the size of the relationship is at what level to serve as a basis for analyzing causal factors and effects of dynamic capabilities of small and medium enterprises (Kattiya & Suvajittanon, 2012).

**Part 3** Statistical analysis of latent variables and mean values of variance were extracted. The researcher considered the reliability of the Construct Reliability ( $\rho_c$ ) and the Average Variance Extracted ( $\rho_v$ ) by using the formula (Diamantopoulos & Siguaw, 2000).

**Part 4** Statistical analysis of structural equation models: The researchers used the analysis of structural equation modeling (SEM) to examine the harmony of the model with the empirical data (Model Fit). Appearance (Model of Fit). The index was used to check the fit of the model (Measurement Model) with the empirical data (Angsuchote et al., 2015).

## Result

The findings indicated that researchers divided the topic into five parts, with the details as follows.

1. General information of the respondents; Most respondents were male. 52.80% of them were 61 or over, 40% of them had experience of working 16 years or over, representing 37%. 34% of businesses had registered capital of not more than 1,000,000 baht. It was 40.30%. It had been in operation since the establishment of the business for 5 - 9 years, accounting for 22.80%. The number of employees was between 21-40 persons or 28.20%.
2. Average Data of Variables; intellectual Capital, innovation, dynamic capabilities, competitive advantage and performance.

2.1 Intellectual Capabilities; The respondents' level of opinion on intellectual capital was at a high level. When considering each aspect, it was found that the relationship capital. The highest level of opinion was the human capital. And structural capital, respectively.

2.2 Innovation; The respondents' level of opinion about innovation was moderate. When considering each aspect, it was found that corporate innovation was at the highest level of opinion followed by marketing innovation. Product innovation and the innovation side of the process, respectively.

2.3 Dynamic Capabilities; The respondents had a high level of feedback on overall dynamic performance. When considering each side, it found that the ability to find opportunities. The highest level of feedback was the ability to modify resources. And the ability to seize the opportunity, respectively.

2.4 Competitive Advantage; The respondents had a high level of opinions on overall competitive advantage. When considering each aspect, it was found that the cost side had the highest opinion level, followed by the flexibility. And quality aspects respectively.

2.5 Performance; The respondents had a very high level of feedback on overall performance. When considering each aspect, it was found that the strategy had the highest level of opinion, followed by finance and marketing, respectively.

3. From the results of the research model consistency check with empirical data, the first model analysis showed that the harmonic index was not consistent with the empirical data, or did not meet the criteria set. Some important stats didn't meet the criteria set. The researcher then proceeded to modify the model by adjusting the parameters by agreeing to relax the initial agreement for the relative error.

For Analytical results, after the model was modified, the model was found to be in harmony with the empirical data, with the six harmony indexes that met the acceptance criteria. The index values  $\chi^2 / df = 0.276$ , CFI = 0.999, GFI = 0.99, AGFI = 0.97, RMSEA = 0.000 and SRMR = 0.000. In harmony with the empirical data.

#### 4. Route Analysis Results

4.1 Intellectual Capital (INT) had a direct positive influence on the competitive advantage of the business (COM) with a direct magnitude of 0.46 which was statistically significant at .05 level.

4.2 Innovation (INN) had a direct positive influence on the competitive advantage of the business (COM), with a direct magnitude of 0.4 which was statistically significant at .05 level.

4.3 Dynamic Capabilities (DYN) had a direct positive influence on the competitive advantage of the business (COM), with a direct magnitude of 0.65 which was statistically significant at .01 level.

4.4 The competitive advantage of the business (COM) has a direct positive influence on the performance (PER) with a direct magnitude of 0.67, which was statistically significant at .01 level.

4.5 INT (INN) and dynamic capabilities (DYN) had a positive indirect influence on performance (PER) through competitive advantage (COM). The mean was 0.38, 0.60 and 0.57, respectively, which was statistically significant at .05 level.

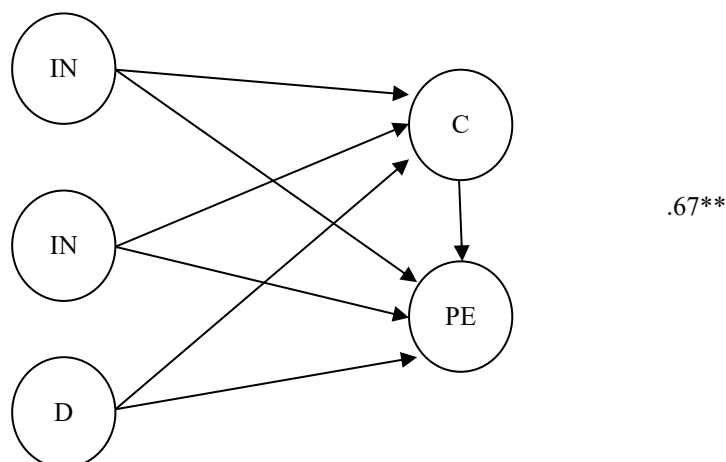


Figure. 1 Hypothesis Results



## Conclusion

The results showed that intellectual capital, innovation and dynamic capabilities influenced on competitive advantage and the competitive advantage influences the performance. At the .01 level, the results of the research were in line with the two objectives. The results were as follows.

1) Intellectual capital had a direct influence on the competitive advantage. This was because the organization had created intellectual capital for employees by having staff solve the problem of systematic work. This allowed employees to experiment with new ways used in the operation of the organization. By learning from past experiences of the best, the best way was to learn from what went wrong. The researcher could distinguish what was wrong and make no mistake.

Then the staff identified the best way, both from their own and learning from others. When employees can think of new ways to do so, they needed to transfer that knowledge to people in the organization and adhere to the same guideline for effective implementation (Guthrie, 2001). Creating a successful intellectual capital must have been systematic. And it can transfer that knowledge to other people effectively. It would add value to the organization. In addition, the creation of intellectual capital also required the knowledge of the individual by using of tools to build intellectual capital to individuals and organizations and motivated employees to curiosity. It helped to motivate employees to work well.

2) Innovation had direct influence on competitive advantage. This innovation was a result of the creativity of the employees in the organization and must have been always targeted at the customer and value was added to the organization. Innovation was based on the knowledge, skills and experience of the individual. So it can be said. Human beings are an irreplaceable element in the innovation process (Molina-Morales et al., 2011). People who innovated could help organizations benefit from competition that was different from their competitors. This could be a competitive advantage over a short period of time. But it would be a long-term basis to create a competitive advantage. These capabilities could be person-level or enterprise-level capabilities.

3) Dynamic capabilities had direct influence on competitive advantage. This may be due to the fact that the organization is faced with situations such as competitive equality. It results from the utilization of resources and capabilities that were cost-effective. This created a temporary competitive advantage. The sustainable advantage depended on the resources or capabilities whether an organization had in place and competitors easily mimic our capabilities. However, sustainable competitive advantage may have not lasted forever.



Due to unexpected economic changes in the industrial structure (such as the arrival of a new competitor), the value of resources and / or capabilities may have been reduced and reduced the ability as a source of competitive advantage (Leonidou et al., 2013).

It was an organization that could improve performance in ways that competitors couldn't compete (Newbert, 2008). It reflected the economic value generated by the resources and capabilities of the organization. The rapid development of the current market made the organization more effective (Prunea, 2014). As new traders continue to enter the market. The competition in the market has increased (Prunea, 2014). Due to increased competition, the organization had to increase its efforts to cope with market competition (Grant, 2010). The key factor in creating a competitive advantage was the knowledge that the organization generated through the learning experience of the people in the organization.

To develop an organization's products or services to be unique or to bring knowledge. Innovation for the organization. This would make what the organization did was different from the competition (Weerawardena & Mavondo, 2011). The advantage may have been due to some asset or resource that an organization has. There is no other organization (De Lara & Neves Guimaraes, 2014), which is consistent with Schilke (2014) research that explores the value of dynamic capabilities for competitive advantage. The study indicated that dynamic capabilities could help a company's competitive advantage. The correlation between dynamic competency and competitive advantage was moderately correlated in line with Li & Liu's research on dynamic capabilities.

According to environmental dynamics and competitive advantage case study from China, the study indicated that dynamic capabilities were one of the keys to finding competitive advantage in strategic management. This was consistent with Cui & Jiao (2011)'s research on dynamic capabilities. Stakeholder alliance strategy and a sustainable competitive advantage. The results showed that dynamic capabilities were in opportunity search. The ability to restructure and adaptability to technology had a significant impact on the competitive advantage which was similar to Wu (2010).

According to application of resource base and fluency in the market fluctuations, the study indicated that dynamic capabilities had a positive relationship to the company's competitive advantage.

4) Competitive advantage had direct influence on performance. This may have been due to the fact that when the organization has a competitive advantage, it will lead to higher performance (Rose et al., 2010). The same work down (Camona-Moreno et al., 2004). The higher performance is driven by the competitive advantage of the company, which is of value. Kam et al. (2010), Kamukama et al. (2011) investigated the mediating competency between intellectual capital and performance.

The purpose of the study was to examine the impact of intermediaries on the competitive advantage of intellectual capital and the performance of small financial institutions in Uganda. In addition, the results confirmed the relationship between intermediaries between intellectual capital and competitive advantage and financial performance.

The research found that Competitive advantage was an important mediator of the relationship between intellectual capital and financial operations and they helped promote the relationship between the two variables, accounted for 22.4 percent of the small financial institutions in Uganda. In addition, the results confirmed the relationship between intermediaries between intellectual capital and competitive advantage and financial performance.

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# 4 H's: The Marketing Mix in the Human Spirit Era

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## Abstract

This conceptual paper revisits the various variations on the 4 P's marketing mix in marketing, carrying out a comprehensive review through its evolution to date. Constructive criticism from various literatures were incorporated to evaluate the 4 P's applicability to the current trend towards individual pursuit of happiness. In this new marketing era, a new paradigm of human spirituality is proposed, resulting in a 4 H's – Human Spirit, Harmony, Habit and Holistic Communication.

**Keywords:** Marketing Mix, Marketing 3.0, Human Spirit

## Introduction

The term marketing mix was first introduced in 1950. From then to now, the marketing environment faced many changes. Marketers have developed new content in its pattern, based on reconsidering current marketing theories for identifying, learning and solving the problems of economic life (Banchev, 2013).

We may state that when the changes in the business content it is not the end of marketing but the next stage of development (Zyman, 2007). As marketer enters deeper into the values and spirit of human, Kotler, Kartajaya, and Setiawan (2010) found that the focus of marketing has shifted from products to customers and latterly human spirit. Thus, authors believed that it is the time to develop a new marketing mix for the new paradigm.

Through this paper the researchers try to explain the development of marketing mix as well as try to deliver the best solution to the following question: What is better for human spirit ear?

## Origins of the Marketing Mix

The expression “marketing mix”, which metaphorically assimilated the marketer as a “mixer of ingredients” (Borden 1984), was first used by Harvard Business School Professor James Culliton in a study of manufacturer's marketing costs in 1947 and 1948 (Grönroos 1994a). One of his associates, Neil Borden, had 12 initial elements in mind. He aimed at building an indicative typology rather than an exhaustive theory – “The list of elements can be



long or short, depending on how far one wishes to go in his classification and subclassification of the marketing procedures” (cited in Baker 1996: 61). The marketing mix recommended by Borden (1984) was based for manufacturing context. It consisted of 12 elements (1) product planning (2) pricing (3) branding (4) channels of distribution (5) personal selling (6) advertising (7) promotions (8) packaging (9) display (10) servicing (11) physical handling, and (12) fact finding and analysis. Borden also suggested that marketing mix can adjust from time to time by 4 major forces (1) consumer’s buying behaviour, (2) the trade’s behaviour, (3) competitors’ position and behaviour, and (4) governmental behaviour – control over marketing.

Nevertheless, a number of researchers considered that such a concept was not simple enough, and began to develop alternative mixes that could be easily remembered –among those, only McCarthy’s 4Ps has survived (O’Malley & Patterson: 2002). Soon the 4Ps were so popular that they became synonymous of the “mix” (Blois 2000), overpowering previous approaches (Grönroos 1994a: 4).

The 4 Ps are largely developed in the literature –the Product, or more accurately “offering”, being the basis of any business. The mix operates to create differentiation, and thus competitive advantage (Baker 1999). Price and Place deal with pricing and distribution strategies, while the fourth P, Promotion, covers all those communication tools that can deliver a message to a target audience (Kotler 1999: 99-106). Marketers use the mix variables to influence demand, therefore they should be able to control them –the birth rate for instance, cannot be an ingredient (Blois 2000: 182). The relevance of the analogy with cake mixes or alcohol mixes is obvious when the well-known effect of synergy is considered –variables taken independently do not make sense; only their combination does.

### **Critiques of the Mix**

According to Grönroos (1994a, 1994b), the 4Ps mix comes from a misunderstanding, a simplistic adaptation of Borden’s original concept. At once its very typological nature disturbs –it is a short “list”, and as such will never be complete. Besides, it should be updated permanently toward an infinite number of variables that fits every situation. The four Ps have been dominating, what is more, for pedagogic, mnemonic reasons (Grönroos 1994b: 130). But they have negative implications in marketing education, within which “students are taught how to use a toolbox instead of discussing the meaning and consequence of the marketing concept” (O’Malley & Patterson 2002: 44-46). Therefore, not only does the model suffer from oversimplification that affects its own validity, but also does it demonstrate a regression to the awkward microeconomic theory of the 1930s. It is sometimes suggested that the mix should be abandoned, because of radical changes that affected markets competing on a global scale (Ettenberg 2003). The model also assumes that its variables are controllable by marketers, whereas frequently it is not the case (O’Malley & Patterson 2002).

Another critique is concerned with the vagueness of classification methods. Promotion, for example, resembles a “miscellaneous” or “other” category, the size of which should be monitored (Waterschoot & Van Den Bulte 1992). This critique is not exempt from weaknesses. First, the relationship between a large category and a conceptually flawed theory is not clearly justified. The purpose of a model is not exhaustiveness; it is to help marketing practitioners make decisions. In this respect, the 4Ps could be seen as insufficient but necessary. McCarthy’s fourth P is a hybrid category subdivided into four classes –advertising, personal selling, publicity and sales promotions. (Baker 1995: 438-447). Some authors go on to suggest sub-categories such as the communication mix, which can be further divided into subclasses (Blois 2000)

A stronger critique of the mix is that “it takes the stance of only one exchange party, namely the seller or the “cake mixer” rather than the consumer or society at large” (Baker 1995:

444). In other words, and this is a major thesis for several authors (Gummesson 1997, Grönroos 1994) the mix is supplier oriented when it ought to be customer oriented. In this context the customer becomes passive – “somebody to whom something is done rather than somebody for whom something is done” (O’Malley & Patterson 2002: 45, Grönroos 1994a). Lautenborg has formulated a model-response to that criticism in the shape of the four Cs (Kotler 1999). Those 4Cs are basically the 4Ps described from the buyer’s point of view (Customer value, Cost to the Customer, Convenience, Communication).

Yet another critique deals with the isolation of each of the 4Ps. The mix tends to view practices as independent rather than interactive (Grönroos 1994a: 6; Usunier 2000: 503). Marketing activities, as witnessed in online shopping for example, span boundaries (Hyman 2002: 26). Cross-functional teams should take responsibility for marketing strategies. (Cranfield School of Management 2000: 285, Lambin 2000: 79).

### Attempts to Extend the Model –An Avalanche of Ps

Some authors believe that the mix can be a reliable theory if it is extended (Hoffman 1993). Ps are blossoming everywhere, all relating to specific aspects of marketing activity. So far over 30 additional Ps have been proposed, including *Period*, *Power*, or even *Pride* (Hyman 2002: 12). Kotler himself (1999) proposes the important addition of two more Ps, *Politics* (Lambin 1993: 70) and *Public opinion*. Lawrence et al. (2000) recommended 2 more Ps (*People* and *Packaging*) which later developed into 5 new Ps concept: *Paradox*, *Perspective*, *Paradigm*, *Persuasion*, and *Passion*. Chen (2006) recommended 4 more P’s for marketing mix (*Precision*, *Payment system*, *Personalization concerns*, and *Push & Pull*). Other attempts in updating the model can consist in refining the current Ps, adding new Ps, broadening its perspective, or adapting it to specific industries (Hyman 2002: 2). Sometimes Ps are proposed to summarize the postmodernist condition of marketing, defined by *Poetics*, *Plenitude*, *Peace* and *Purpose* (Brown, Bell, & Carson 1996: 37). It is in this postmodern attitude of the 1990s that we have composed this parody:

*Sweet dreams are made of these  
Who am I to disagree?  
I travel the world and the 7 Ps  
Everybody’s looking for something*

In various conferences in Asia, we also participated in the debate and communicated our own Ps: *Possibility*, *Power*, *Parallax*, *Precision* and *Papaya* (the last one refers to the famous “Papaya Hold-Up” case study). Others assert that two additional Ps would change McCarthy’s perspective from the short term to the long term. Those two Ps, *People* and *Processes*, indicate a “Relationship Marketing” (RM) approach (Cranfield School of Management 2000: 210). Schultz (2001) suggests a shift from the 4 Ps to a network orientation. He calls this network the “marketing triad”, which comprises the marketer, the customer, and the employee. More generally, the building of a network and its role are central to RM theory (Kotler 2003: 13, Grönroos 2000). Along with the profusion of Ps, some authors mention 30 Rs (Gummesson 1997: 267) or 8 Ds (Hyman 2002: 10) as alternative paradigms.

### Towards a New Paradigm

The mix has now reached its vanishing point, and marketing requires a new paradigm (O’Malley & Patterson 2002: 50; Brown 2003). As they use products to define themselves, consumers react to images and symbols that suit their lifestyle; they co-create the offering (O’Malley & Patterson 2002: 49). Examples include customized Levi’s jeans (Baker &



Mouncey 2003: 419) and Miyake's creation of a brand, A-POC, which bring customisation into reality (Kitchen 2003: 23-25). Such consumers are looking for genuine, ecological products and services that will relieve them from the effects of a fast-moving world (Brown 1995: 116).

The re-emergence of "tribes" is motivated by desires to revive the community archetype of the village or the district (Browlie 1999: 67). Tribes are not definable in spatial terms –the Internet allows them to communicate and exist within a virtual, ubiquitous network. Bauman's (2001) study of kinship networks provides an explanation of behavioural instabilities and unreliable preferences. Consumers are increasingly concerned with the way marketers use their personal data, and require post-sales responsibility from manufacturers as well as ecologically-friendly processes (Lambin 2000: 41).

In sum, a general shift from a production-driven to a consumption-led economy has modified consumption patterns and marketing practices. It has led marketers to adapt their efforts toward a "customer-centric response" where "the customer becomes the point of departure for the organization, not its final destination" (Baker & Mouncey: 418). Grönroos therefore claims that the 4 Ps are a straitjacket. What we need is a RM perspective (Ballantyne et al. 2003), or one of its ersatz –"one-to-one marketing", "micro-marketing", "database marketing" (Browlie 1999: 75), or "organisational marketing" (Kitchen 2003: 178).

### The New Marketing Era

Grönroos (1994a: 14) tells us that the four Ps are not to be completely abandoned, because relationships do not function by themselves.

What are the conditions for those relationships to be activated, then? And how variables should be coordinated? Grönroos does not specify an alternative model, but rather stresses the importance of *relationships*. This leaves us with a challenging question—how does RM interact with the 4Ps toolbox? In other words, is it possible to optimize the marketing concept throughout all those challenging theories? Isn't marketing, to put it cynically, just another form of rhetoric (Kitchen 2003: 178)?

In response to these anxieties, marketing researchers publish diverging opinions. Some want to improve the existing instruments of the toolbox, others want to add instruments, others give general directions –marketing should be creative, flexible, open, etc. (O'Malley & Patterson 2002: 51). As marketing specialists and experts in business thought, our recommendations are crystal clear. We agree that the model has serious limitations, despite several attempts to fill the lacks. We find nevertheless abusive that based on those limitations, Grönroos conjured up a "straitjacket, fostering toolbox thinking", because the variables still exist. So, let us adapt them. Let us introduce... the 4 Hs!

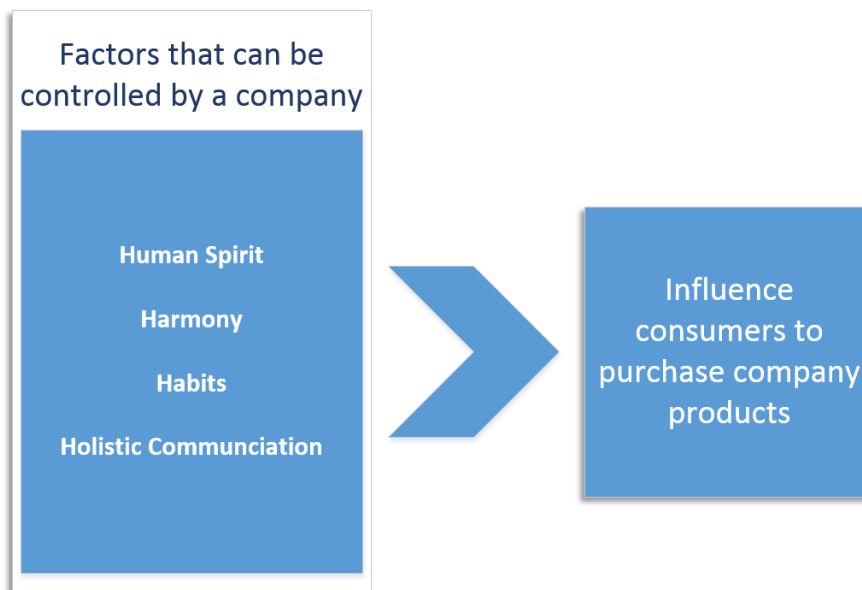
In 2010 Hermawan Kartajay, the owner of Marketplus, Inc. collaborated with marketing guru Philip Kotler and Iwan Setiawan to write *Marketing 3.0* (Kotler, Kartajaya, & Setiawan, 2010)

The book explores three marketing eras. The first, marketing 1.0, is an ancient product-centric concept with which economies of scale and cost reduction were priorities. Followed by marketing 2.0 where customer-centric concept with which customer requirement were priorities. Then the new era of marketing 3.0 where human spirit-centric has occurred, it is the era where marketing practices are very much influenced by changes in consumer behaviour and attitude. It is the more sophisticated form of the consumer-centric era where the consumer demands more collaborative, cultural, and spiritual marketing approaches.

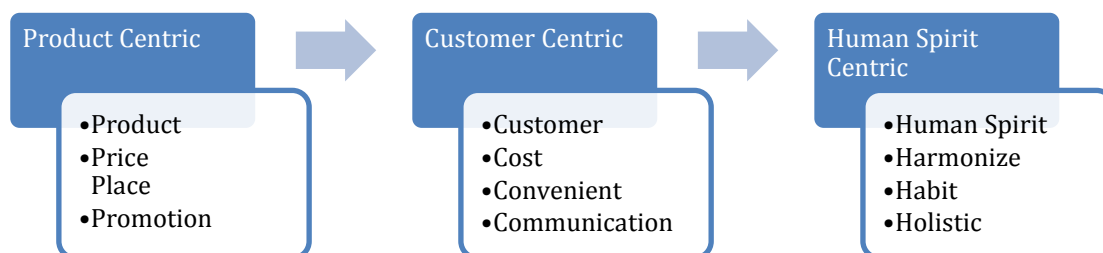
## The New Conceptual Framework for Human Spirit Era

While Kotler, Kartajaya, and Satiawan (2010) has classified the development of marketing into 3 eras. The traditional marketing: 4 P's (product, price, place, and promotion) is work well for product-centric era. Followed by 4 C's (customer, cost, convenient, and communication) that best fit to served customer-centric era. But a new marketing-mix to work with the new human-spirit-centric has not been mentioned.

Researchers have using empirical techniques to explore the marketing activities that may fit with this new marketing era. And come up with the new conceptual framework. As an example, contemporary marketing campaigns focus on social and cultural issues like Toyota's Father's Day advertisement is a good example of new marketing mix. shows both sides of father and daughter relationship called "Loving Eyes". We absolutely love this video. Researchers ourselves wept when watching it. Its heart-warming conclusion promotes Toyota's collision alarm system, which saves the father, his daughter and his grandchild from hitting the car in front. The video has proved popular online and built up a good reputation for Toyota (Sehmer, 2015). Consequently, one of our team decided to purchase one to take his family out during the extremely few weekends that are not devoted to research. As Oxford dictionary defines marketing mix as a combination of factors that can be controlled by a company to influence consumers to purchase its products. Our new marketing mix for marketing 3.0 should be the transformation of 4 C's into 4 H's which have the framework at presented below:



New Conceptual Framework for Human Spirit Era



## Method

The data used in the investigation are drawn from a study on current marketing activities. The case study was carefully selected based on relevance to Human-Centric era. The researchers use empirical measures of cases to form a concrete finding.

## 4 H's

### *Human Spirit*

Helminiak (1996) brilliantly mentioned that human spirit is the mental function of how people aware, insight, understanding, judgement, and other reasoning powers. The expression "human spirit" deals with human soul, human philosophy, human psychology, human art, or human knowledge. It represents our intellect, emotions, fears, passions, and creativity. In human spirit paradigm, customers are more satisfied with the social and spiritual status they have attained, and the benefits for business are achieved through the raise of corporate social responsibility (CSR) and corporate environmental awareness (Kotler & Le, 2011). Therefore, marketers need to have insight into the Human Spirit of the Target Customer. And come up with the right marketing strategy to satisfy inner human spirit.

### *Harmony*

Setting the prices of products is a complicated and messy process in today's world. In the past, lower priced goods may win in the field of price, or products that give importance to the cost to the customers might have been the first priorities in purchase decisions. However today, purchase decision is a far more delicate matter than before. If it were decisions using computerized structural equations, then the program would seek the lowest priced products. But human decisions are made up of Logic and Emotion, and oftentimes, Emotions have more impact than Logic. Therefore, marketers need to give importance to Emotion when it comes to customer purchase decisions.

We have made an analysis of Thai-Indians in Bangkok, and found that in this closed society, all the families know each other. In Indian society, they might not send their kids to good schools that have low tuition fees. So, if possible, they would have to send their children to schools that charge tuition fees of about 300K to 500K baht upwards, because the tuition fee price is not tied to the lowest cost of production, but is tied to the image of the product.

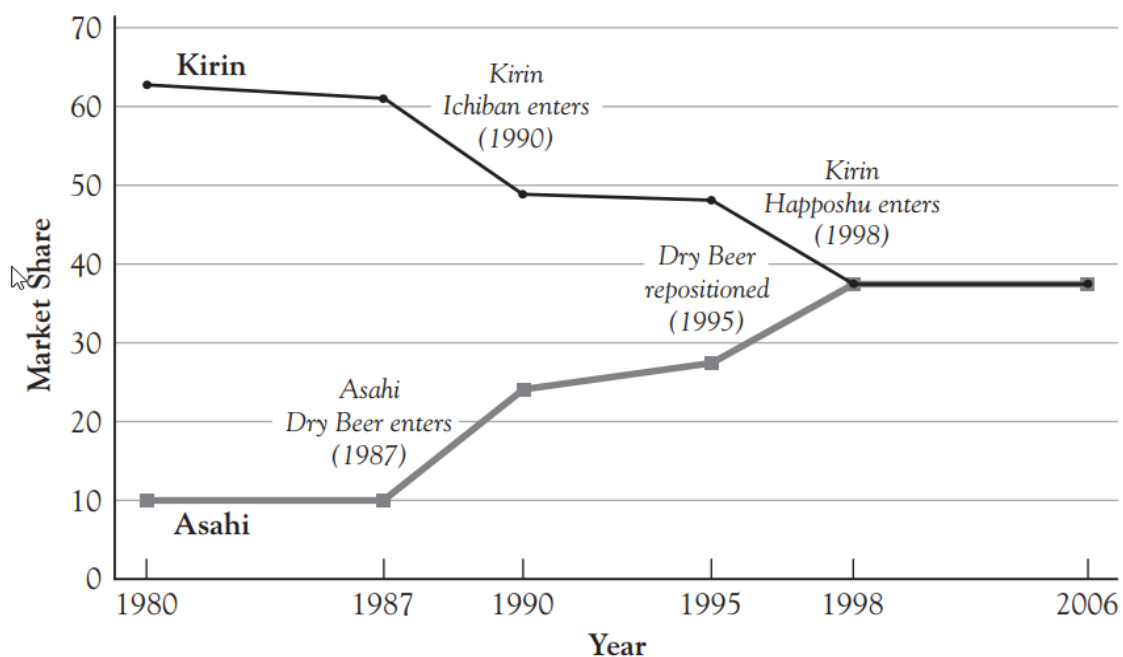
From our research on a sample in Somalia, it was found that the very same product, one displayed in the showcase would have set a much higher price than one that is placed on the floor, at least two times higher in price, but would sell better just because the customer believes that expensive goods that are appropriately displayed would have higher value to the customer's Human Spirit. In another experiment, we tried selling coffee in a beautiful glass bottle for only 35 baht, but being displayed in a sandwich shop along the street, it would not sell. But when we changed to a plastic bottle and sold it at 20 baht, it sold extremely well. The coffee with the same glass bottle, when trial sold at a beautiful coffee shop, it could sell at 59 baht per bottle, which is double the price that would sell by the street sandwich shop. Therefore, price setting in today's world needs to harmonize with the surrounding components, not only linkage with the target customer, his/her identity and his/her reference group, but also packaging, environment, and presentation.

Harmonize is go beyond price. It can change the way customer compare the product. A smaller housing estate make find it difficult to compete with the larger housing estate with larger street, swimming pools, and facilities. By understand the need of their target customer

and harmonize it, may change the result of competition. For example, one smaller housing estate in Bangkok only focus on early family and harmonize with their need by change their sales talk to: warmer housing estate environment, where all residence know each other, smaller street to reduce the speed of car and increase the attention to smaller kid bicycle, smaller swimming pool for more private, and smaller community for a bigger relation (Jingjit, 2016).

Harmonize is another good strategy to strengthen the firm competitiveness. Vice-versa the lack of understanding of harmonize can affect the brand position as well as market share.

As an example of Japanese beer industry where Kirin was the major player during 1970 - 1986. In the year 1986, By understanding the need of the new generation that focus more on less sugar and stronger percentage of alcohol, Asahi has introduce the new product “Asahi Super Dry”, a sharper, more refreshing beer with less aftertaste. Be able to harmonize the product with new generation make a great success for Asahi. Within 3 years the draft beer by Asahi can capture 25% from Kirin Larger beer. Follow by 1990, Kirin try to gain some market share back by introduce the new product. Unfortunately Kirin Ichiban that introduced in 1990, milder and smoother lager beer with no bitter aftertaste, does not harmonize with customer. It only can prolong the declining for another five years until. In the year 1995, Kirin make another move by reposition itself from lager to draft beer called ‘Kirin Larger Draft’ by expecting to capture a younger audience. The Kirin main product ‘Kirin Larger’ was rebranded to ‘Kirin Larger Classic’ and did not get much attention at that time. However, the rebrand position of Kirin did not harmonize with customer perception. It create confuse image of Kirin which resulted in decline market share for Kirin (Aaker, 2013).



Source: Aaker, 2013

### **Habit**

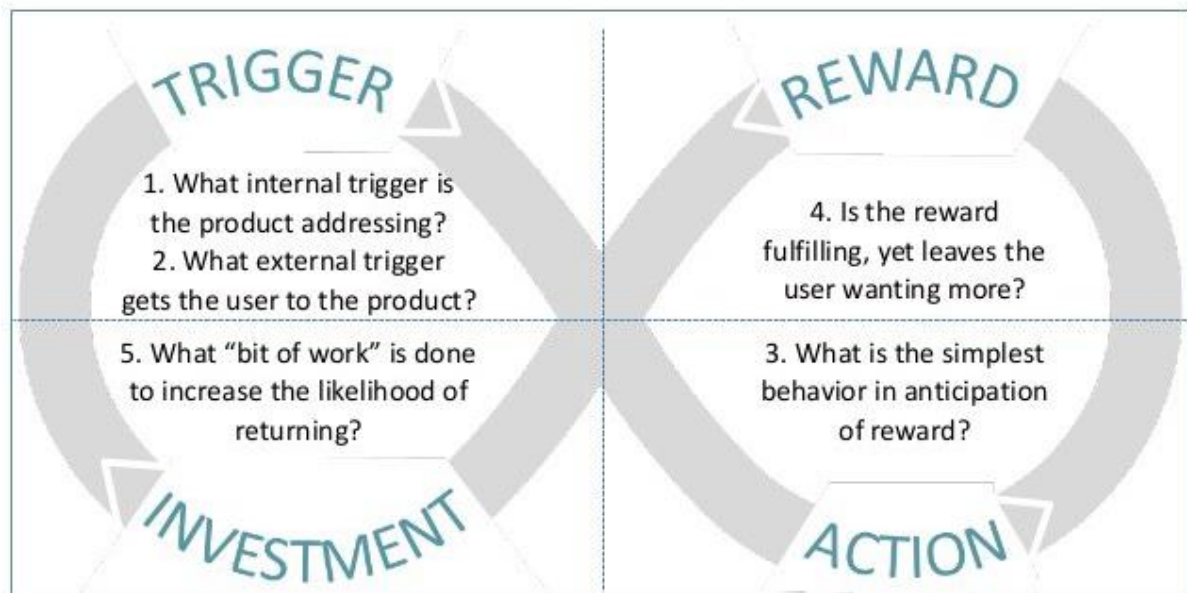
In the year 2006, The Duke University has found that 40% of our behaviour turn to be habitual. The marketer who know how to stimulate the behaviour to create habit, will success with customer loyalty.

In the past, location is of utmost necessity, especially for convenience. E-commerce age makes it possible for customers to purchase anywhere and anytime. Therefore, every product that sells using convenience do not create difference for the customer. But rather,

products that can play with consumer behaviour are the real winner in today's world, because today's people have more knowledge and understanding, the creation of processes/rituals in using services can make the customer feel that they are a part of the organization, and get to create good things for the World, making the customer appear smarter, bringing about the creation of loyalty in the long term.

For example, the launch of iPhone on the first day, there was a ritual with long queues lasting a long time, it created a motivation for people to buy, rather than purchasing online which could be done at any time. Restaurants in Bangkok also need to have a long line of people waiting, making people feel that it is more delicious than home delivery. Fast food restaurants also need to create a habit for the customer, where every customer know that they have to stand in line to order food, and clear the trays into the trash bin by themselves.

Another good example is shopkick a shopping app for smartphones from an American company that offers users rewards for shopping activities both online and in-stores such as walking into stores, scanning items, making in-app or in-store purchase and submitting. The statistic shows that customer who expect the reward from walking into stores will start purchasing after visit the store for 7 times. Shopkick has create a new habit for customer to visit the same place just for rewards, and turn them to be regular customer.



The Hook Canvas: Source (Eyal & Hoover, 2013)

One good way to work with customer habit is by using the hook model introduced by Nir Eyal & Ryan Hoover. The Hook Model explain an experience designed to connect the customer's problem to a solution frequently enough to create a habit follow the four step of hook model: trigger, action, reward, and investment. Triggers is the ability to urge the customer to take action. Action is the behaviour in order to get the reward. Rewards are the value that satisfy customer needs and problem. And investment is about anticipation of the rewards in the future (Eyal & Hoover, 2013)

### ***Green Economy and Holistic Communication***

Creating process/ritual in buying also directly impacts the Green Economy thinking. Buyers in many countries all over the world are willing to forego convenience, and bring cloth bags to the supermarket, because they all understand global warming issues. Consumers also know how to sort their wastes into categories to reduce waste problems. Therefore, today's



marketers need to understand consumer behaviour, and identify habits in service usage, as appropriate for that product. Today's world also gives more importance to Holistic communication. There are more media that can reach the customers, far more than ever before. So, smart marketers would know which media is more suitable for their products.

## Conclusion

Many researchers have written the article related to marketing 3.0. And this paper can be the first paper that suggest the marketing mix for marketing 3.0 era. From today marketing activities, they have shown the exist of the new marketing mix. However, majority of marketer still practice marketing 1.0, where some practice marketing 2.0 and only few are moving into marketing 3.0. Thus, it might need to take some time to prove the validity of this new idea. With today exponential change in marketing environment soon the next marketing era and the next marketing tools will arise. This is not only representing the dynamic of marketing environment but also the challenge of marketing for the future to come.

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# Determinants Affecting Agritourist's Travel Intention toward Agro-tourism around Eastern Coastal Region of Thailand

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## Abstract

The purpose of this study is to determine the effect of Agritourist's Travel Intention toward agro-tourism around Coastal Eastern Region of Thailand. The aims are: (a) exploring the agritourists' behavior in agro-tourism, (b) determining the determinants of agritourists toward traveling intention in agro-tourism destinations, and (c) determining the determinants of different segment of agritourists toward traveling intention in agro-tourism destination. Data are totally collected from 409 agritourists who are traveling in 12 agro-tourism destinations where located in Rayong, Chantaburi, and Trat province. The statistical methods conducted in this research are descriptive statistics, structural equation model (SEM) and cluster analysis. The research finding shows six factors that affect agritourists travelling intention consist of attitude determinants, activity initiation, accommodation perspectives, amenities and advertising communication, accessibility standard and attractive creation. Moreover, there are three segments: Young Professional, Married Professional, and Empty Nesters. The results show that amenities and advertising communication has significant positive effect to agro-tourism travel intention in all segment. The activity initiation has significant positive effect to agro-tourism travel intention in overall and Young Professionals' perspective. However, the attractive creation has the effect negatively on agro-tourism travel intention by Young Professional perspective. The results of this study would help management to identify the determinants affecting agritourist's travel intention and implement an effective strategy to meet the agritourists' expectations in agro-tourism.

**Keywords:** Agro-tourism, Agritourist's Expectation, Eastern Coastal Region

## Introduction

Nowadays, the characteristic of tourism is changed around the world. In Thailand, tourism is an activity encompassing economic, society and natural resources (Yang et al., 2010; Karampela et al., 2016). The tourists' motivation factors are the abundance of natural resource, arts and culture, history and uniqueness of tourist destination (Phandee and Pinthong, 2012). New generation of tourists' characteristic is dependent to seeking for new experiences and new activities (Koutsouris et al., 2014). Agro-tourism, in Thailand, is strongly activated and promoted by the government which its benefit offers agricultural products of local community to be widely well known. The phenomenon of urban agricultural in the globe had rapidly increased since 1990s (Yang et al., 2010). Hence, the trend of agro-tourism had been promoted officially throughout Thailand since 1995 (Na Songkhla, and Somboonsuke, 2012).



At present, Office of Agricultural Economic presents the 1,213 agro-tourism destinations from all region of Thailand; they are divided into 969 belonging to local community tourisms, 87 belonging to government responsibility and 163 belonging to Agricultural Learning Center (ALC). Most agritourists prefer to travel in short term with participating in physical activities and some of them prefer to stay overnight in the local community such home stay to observe and perceive the experience of local way-of-life (Bureau of Farmer Development, 2005). McGehee, Kim, and Jennings (2007) indicated three elements of agro-tourism; independence, contribution to community and diversity of product. In addition, agro-tourism enlarged the positive attitude for local people and brought new awareness of environment and culture toward local community (Lopez and Garcia, 2006).

The successful of agro-tourism development is benefit to local community; economic, financial performance, new local businesses establishment, employment opportunity, developing the competency of local people and training, knowledge value, cultural exchange and conservation of local agricultural resources, that affects to be sustainable in agricultural resources used in agro-tourism (Kumbhar, 2012; Na Songkhla and Somboonsuke, 2013; Schilling et al., 2014; Kaminska and Mularczyk, 2015).

Tourism industry inevitably plays a substantial role in the economy (Goeldner and Ritchie, 2012) that affects to creation of agro-tourism sustainable development, tourists' activities have to conserve, preserve and respect the social believable, cultural awareness and natural resources of local destination. Moreover, the increasingly of sustainability in each agro-tourism must concern undertaking of research and capacity building in physical activities on different aspects regarding local policies, and its development, management, regulation, and similar issues of public concern. (World Tourism Organization, 2007). However, the Agro-tourism destinations are able to welcome agritourist in the short period; only in cultivation period about 3 months per year. Thus, the study of agritourist's expectation in agro-tourism around Eastern Coastal Region of Thailand will be beneficial to improve the quality, efficiency and effectiveness in agro-tourism of Thailand for attaining the intention of agritourist for being more frequent of their travelling.

## Literature Review

### *Eastern Region of Thailand*

Tourism Authority of Thailand: TAT (n.d.) indicates Thailand is known as a kingdom of farmers, and its rice, silk and food products are recognized all over the world. There are 6 region of Thailand; North, Northeast, Central, West, South and East. The Eastern region of Thailand is the mixture of mountain and the sea, where it characterized by mountain ranges and several river basins that flow into the Gulf of Thailand. there is divided into 7 provinces; Chonburi, Rayong, Chanthaburi, Trat, Chachoengsao, Prachinburi and Sa Kaew. The main attractions are beautiful beaches and various islands where are the famous coastal location of Rayong, Chanthaburi, Trat and Chonburi. Moreover, Eastern region is not a location for the sand, the sea and sun but also make up an integral part of agricultural produce such as fruits crop, its rural and agricultural traditions and close village communities.

The best location of agro-tourism in Coastal Eastern Region of Thailand is Rayong, Chanthaburi and Trat province which indicates the Eastern region embraces perfect geographical, climate, and soil conditions for growing fruits. The briefly conceptualization to identify both provinces are; 1) "Rayong" is marked by series of mountains interspersed by flat plains and large tracts of forest and fruit plantation. This province is famous for its interesting tourist attractions and regional fruits such as pineapples, durians and rambutan. There are total 14 Agro-tourism destinations. 2) "Chanthaburi" means "the city of the Moon".

It is a busy gem-mining center, particularly noted for its sapphires and rubies. Chanthaburi is also renowned for tropical fruit (rambutan, durian and mangosteen), rice noodles, and Chanthaboon mats. There are total 18 agro-tourism destinations. And 3) “Trat” is combine with long white sandy beaches, unspoiled coral reefs and fifty-two of the islands off Trat’s coastline. Moreover, Trat is a major fruit-growing and fishing area. There are total 13 agro-tourism destinations (Phachong et al., 2002; Somnuek, 2005).

### *Agro-tourism*

Tourism is a physical space where tourists select to travelling and recreation for best experience. Agro-tourism has high potential to provide the best benefit to local community, not only in agriculturists, but also in off-farm activities such as transportation, accommodation, agriproduct and agriservices (Carlos et al., 2009). Agro-tourism is a kind of tourism which Phillip et al. (2010) defines the meaning of agro-tourism within 3 criteria; the nature of contact between tourists and agricultural activities, presenting products based on a “working farm” and level of authenticity in the agro-tourism experience. In addition, Na Songkhla and Somboonsuke (2012) offer the definition of agro-tourism where has to combine agricultural activities and tourism services.

Moreover, Karampela et al. (2016) indicates the general factors, to develop agro-tourism, have to concern into 2 main factors which are products and services. At present, agro-tourism has been defined to a set of activities that combines with products, services, and experience of agriculture (Maneenetr et al., 2014). Agritourists can also be educated the important from rural areas such as knowledge of agro-tourism and the uniqueness of rural landscapes by the local community.

Agro-tourism based on “farm tourism” enhances the level of tourists by attractive agricultural activities in farming life and production activities. However, the interesting factors to motivate agritourists consist of accommodation for recreation, entertainment or education activities (Carpio et al., 2008). Office of Agricultural Economic (2016) classifies the agro-tourism into 5 taxonomies; 1) Agricultural such as orchard tourism, flora tourism, herbal tourism and etc. 2) Forest such as natural forest and reforestation 3) Fishery 4) Livestock and animal farm and 5) Local education of cultural festival and local life.

In tourism destination management, six core components of tourists’ attraction in tourism destinations: attractions, accessibility, amenities, available package, activities and ancillary service (Buhalis, 2000). These components are widely considered. In addition, Kumbhar (2012) and Maneenetr and Ha Tran (2014) present the components of agro-tourism following tourists’ demand which apply seven aspects: attitudes, attractions, accessibility, accommodations, activities, amenities, advertising and souvenir shop. However, the components of agro-tourism have to create and combine the education values with a part of tourists’ experience and concern the benefit to tourists’ expectation.

One of the most attraction for tourists’ expectation is agricultural activities that have been divided into three types; firstly, direct contact means a tangible feature in tourists experience such as milking a cow and harvesting a crop; secondly, indirect contact mentions to a secondary connecting to agricultural activities within tourists’ experience such as crop maze or food processing; finally, passive contact indicates to operate independently and only farm is held on in common such as outdoor activities (Phillip et al., 2010). Nowadays, agro-tourism’s conceptualization is changed by encouraging the agritourists to participate in economic activities; a social practice and making agritourist’ satisfaction from their expectation (Karampela et al., 2016).

### *Agritourists' expectation*

The expectation is important factor to attract and motivate tourists to participate in tourism industry. Expectation has been considered imperatively in explaining individuals' behavior particularly their economic behavior (Olson & Dover, 1979). Moreover, expectation is generally referred to as a prediction in the mind of the consumer about the anticipated results or performance of the product/service transaction in the future (Higgs et al., 2005). Destination's owner should concern and consider all expectation to fulfil the best perception and awareness of tourists' demand. The agritourists' expectation can be enhanced by the development of agro-tourism products and services that present location, environment, agricultural products local community, and including with agro and eco-tourism activities.

The concepts to promote agro-tourism products among the tourists 'expectation, are increasing of agricultural knowledge; some travel agencies request the local community as tour guide and agro-tourism as added-value activities in destination (TTR Weekly, 2016). However, Agriservice is required from agritourists which can attract the new target market group such as teenagers or students or incentive tourists (Kaminska and Mularczyk, 2015). A review of several recent tourism studies (Fountain et al., 2010, Kim, 2012, Lee et al., 2011 and De Rojas and Camarero, 2008) reveals that existing studies were understanding the expectation as a standard of actual product and service, and examining the consequences of expectation through satisfaction and quality perceptions.

Kumbhar (2012) proposed 18 items regarding to agritourists' expectation: attractive locations, convenience location, peace and quiet, comfort of interacting with service providers, interpersonal congruency, countryside accommodation, clean and green environment, food image, chance to be involved in farm, education value, entertainment value, security and trust, adequate parking facilities, participation in rural festivals, purchasing opportunities, primary health care, interact with rural people, and continue of relationship with farmer. On the other hand, Kaminska and Mularczyk (2015) summarized that determinations of agritourists' requirement in agro-tourism destination; there are convenient transportation, geographic environmental characteristics, level of agritourist' service, agritourist farm facility, quality of education aspect, the purchase of local products, varieties of agritourist physical activities, participation in rural activities and the like of social characteristic and lifestyle. However, there are many researchers focused on eight components which is called 8 As: attraction, accessibility, activity, amenity, ancillary service, accommodation, advertising, attitude (Kumbhar, 2012; Maneenet and Ha Tran, 2014).

However, the researchers was summarized the agritourists' expectation from many documentary researches. Then, the eight tourism components was introduced and applied to study agro-tourism travel intention around Eastern Coastal Region of Thailand with the following elements:

1. **Attraction** is something that makes tourist impress, interest, or liking; it can be the knowledge and enjoyment of tourism. The attractions of the tourism vary depending on the needs and interests of each tourist group. Moreover, agro-tourism attraction enhances the knowledge of agriculture along with leisure and entertainment. Tourists can experience the agricultural lifestyle, traditions, culture of the local communities, who participate in various agricultural activities to improve skills, exchange agricultural knowledge, enjoy the several of entertainment, or purchase the agricultural products and community products.

2. **Accessibility** is an important factor that comforts tourists to travel to tourist destination. This implies the routes or transport networks that tourists can easily access to the tourist destinations.
3. **Activity** is considered as the heart of tourism products for travelers seeking experience. Tourist attractions require activities for tourists to participate and attract the tourists. Activities of agro tourism are classified by Thailand Institute of Scientific and Technological Research (TISTR) into six categories: 1) products display or demonstration such as display the procedures of planting paddy, 2) agricultural activities by tourists' participations such as fruit gathering, 3) home stay, 4) agricultural knowledge training which provides agricultural knowledge and the wisdom of villagers such as fruit preservation, 5) agricultural products distribution such as selling flowers, fresh fruits, and 6) agricultural business offering.
4. **Amenity** means the facilities provided by tourism destinations in order to facilitate the needs of tourists to achieve maximum satisfaction. For instance, the transportation and meal are provided for facilitating tourists.
5. **Ancillary service** will require various services to facilitate tourists such as tourist centers, banks, ATMs, hospitals, gas stations, etc.
6. **Accommodation** is facilitated tourists traveling to provide the tourists for stay overnight or taking the rest for longer. The component of accommodation consists of comfort, convenience, suitable price, types of accommodation, and sufficiency.
7. **Advertising** means the communication channels to disseminate the information of tourism destination, activities from the tourist attraction to agricultural tourists.
8. **Attitude** means the opinion or attitude of tourists toward the agricultural tourism and local community to participate in agricultural destination.

## Research Objectives

The main objectives of this study are as followed:

1. To explore the agritourists' behavior in agro-tourism.
2. To determine the determinants of agritourists toward traveling intention in agro-tourism destinations.
3. To determine the determinants of different segment of agritourists toward traveling intention in agro-tourism destinations.

## Research Methodology

The purpose of this study is analyzing and examining the attributes affecting the agritourists' travel intention around Eastern Coastal Region of Thailand.

### Data collection

As Structural Equation Modelling (SEM), the sample size should meet the statistical requirement of SEM to ensure the quality of the results that the minimum sample size of SEM should not be less than 200 (Weston and Gore, 2006). The samples were 409 agritourists who preferred to travel in agro-tourism around Eastern Coastal Region of Thailand.

The data collection was completed in one month (1- 31 May, 2017). The instrument of data collection is questionnaire. The researchers identified 12 locations of agro-tourism where located in Eastern Coastal Region of Thailand: 4 places in Rayong, 4 places in Chantaburi, and 4 places in Trat. The questionnaires were distributed in a particular destination. Hence, the observations were selected by using convenience sampling by asking the persons who used to come to travel in the agro-tourism destinations around Eastern Coastal Region of Thailand.

### Measurement

A research instrument was developed by researchers, which was a questionnaire, by gathering useful data from previous studies as stated and cited in literature review. The developed questionnaire was validated by 3 specialists in tourism industry. A questionnaire consisted of four parts. The first part, agritourists were required to brief the demographic characteristics that were age, gender, status, education level, occupation and salary. The second part was agritourists' behavior based on general information and activities' interesting in tourists' destination. Part three of questionnaire consisted of 42 items, were selected to identify the main expectations of tourists that would encourage the agritourists to participate in agro-tourism. All items were measured by a 5-point Likert scale ranging from 1 - 5: 5 is 'very high expectation', 4 is 'expectation', 3 is 'neutral', 2 is 'low expectation', and 1 is 'very low expectation', respectively. Finally, the recommendation was suggested to motivate agritourists to travel agro-tourism in Eastern Region of Thailand.

### Data Preparation and Data Analysis

According table 1, the majority of respondents' gender is female. Most of their educational background is bachelor degree with the income between 10,001 – 30,000 baht.

Table 1. Agritourists' demographic characteristics

Agritourists' demographic characteristic		Frequency	Percentage
Gender	Male	158	38.6
	Female	251	61.4
Education Level	Below Bachelor Degree	77	18.8
	Bachelor Degree	216	52.8
	Above Bachelor Degree	116	28.4
Income	Lower than 10,000 baht	79	19.3
	10,001 – 20,000 baht	110	26.9
	20,001 – 30,000 baht	105	25.6
	30,001 – 40,000 baht	44	10.8
	Above 40,000 baht	71	17.4

The behavior of agritourists for traveling at agro-tourism is shown in table 2. For traveling in agro-tourism destination, the travelers prefer to travel with their friends or family approximately 4-6 persons per group. They will travel in agro-tourism for one-day trip. The interesting ticket package should include fruit buffet and also the activities provided by the tourist destination. The acceptable ticket price range is between 270 and 400 baht.

Table 2. Agritourists' behavior for traveling in agro-tourism

Agritourists' behavior for traveling in agro-tourism		Frequency	Percentage
Number of Travelers	1-3 persons	76	19.0
	4-6 persons	183	45.9
	7-9 persons	62	15.5
	10 and above	78	19.5
Whom do you like to travel with?	Alone	8	2.0
	Family	160	39.1
	Friends	195	47.7
	Organization/Club/Foundation	46	11.2
The package of purchasing the ticket	Visiting the sightseeing	51	12.6
	Visiting the sightseeing + Buffet	114	28.1
	Visiting the sightseeing + Buffet + Activities	240	59.3
Duration of traveling in agro-tourism	Half day	91	22.5
	1 day	206	51.0
	2 days	74	18.3
	3 days and above	33	8.2

The assumptions of Structural Equation Model (SEM) should be addressed. The researchers are careful about missing value, normality test, and outlier detection. Skewness and kurtosis values for normality detection should be in acceptable range: positive 3 and negative 3. According to research data, both values of each indicator are in the range. All data are normally distributed. Based on these assumption and data preparation, the researchers have investigated and addressed these problems.

According to the exploratory factor analysis (EFA), it was conducted to identify the factor structure of the measure with an eigenvalue should be more than 1. In addition, the indicators which have small communalities values are eliminated from the analysis. The cutoff value in communalities values should be 0.4. Hence, there are 40 items in this analysis which are classified into 7 determinants: 1) Attitude 6 items, 2) Activity Initiation 7 items, 3) Accommodation Perspectives 6 items, 4) Amenities and Advertising Communication 8 items, 5) Accessibility Standard 7 items, 6) Attractive Creation 4 items, and 7) Attending Intention 2 items.

The test of reliability: Cronbach's alpha is applied to investigate the reliability in each construct. The value indicates high consistency and should be above 0.7 (Knapp & Mueller, 2010). Cronbach's Alpha values, in table 3, are between 0.805 and 0.883 which are high consistency in every construct. Finally, the instrument is suitable for further analysis on Structural Equation Model (SEM) to investigate which constructs impact attending agro-tourism travel intention.



Table 3. Factor Loading and Reliability of each determinants

	Factor Loading	Reliability
<b>Factor 1 Attitude Determinants</b>		
Agricultural tourist destination is safe.	.735	0.856
People in community are friendly to travelers.	.733	
People in community have good relationship with travelers.	.726	
Agricultural tourist destination has been taken care continuously.	.664	
Agricultural tourist destination has been promoted by community.	.571	
Agricultural tourist destination has clean environment.	.551	
<b>Factor 2 Activity Initiation</b>		
Agricultural tourist destination has Philosophy of Sufficient Economy activities.	.757	0.874
Agricultural tourist destination has training about agricultural knowledge.	.692	
Agricultural tourist destination has various agricultural activities.	.691	
Agricultural tourist destination has activities for travelers to participate.	.646	
Agricultural tourist destination has activities for family to participate.	.629	
Traveler has shared the experience with local tour guide through agricultural activities.	.579	
Agricultural tourist destination has agricultural products to sell.	.506	
<b>Factor 3 Accommodation Perspectives</b>		
The accommodation is provided sufficiently.	.744	0.883
Agricultural tourist destination has provided the accommodation.	.741	
The price of accommodation is fair.	.699	
Various types of accommodation such as homestay, camping.	.697	
Accommodation is comfortable.	.605	
Accommodation is clean and neat.	.542	
<b>Factor 4 Amenities and Advertising Communication</b>		
Agricultural tourist destination has brochure and instruction manual.	.607	0.876
Agricultural tourist destination has learning information description.	.590	
Traveler can comfortably find the information of agricultural tourism.	.572	
Agricultural tourist destination has video of destination presentation	.566	
Agricultural tourist destination provides transportation.	.551	
Local tour guide gives presentation to travelers.	.546	
Agricultural tourist destination has various information channels.	.543	
Agricultural tourist destination has cooked by using the local agricultural product.	.400	

Factor 5 Accessibility Standard		
Agricultural tourist destination can be accessed conveniently.	.750	0.860
Agricultural tourist destination provides parking space comfortably.	.650	
Agricultural tourist destination has beautiful scenery.	.630	
The route to Agricultural tourist destination has been improved continuously.	.566	
The route to Agricultural tourist destination is safe.	.534	
The sign to Agricultural tourist destination is clear.	.475	
Infrastructure has been developed to support travelers.	.457	
Factor 6 Attractive Creation		
Agricultural tourist destination do organic farm with various products.	.578	0.805
Agricultural tourist destination has organic learning center.	.572	
Agricultural tourist destination has story of agriculturists' lifestyle.	.561	
Agricultural tourist destination has natural environment scenery.	.499	
Dependent variable: Attending Intention		
You intend to visit Agricultural tourist destination in future.	.712	0.851
You intend to visit new Agricultural tourist destination.	.683	

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 15 iterations.

Furthermore, the respondents are classified into three segments. The attribute to separate each segments in this study is demographic information. As well as, the statistical technique applied in identifying the segment of respondents is cluster analysis. Based on the results, the attributes that are able to classify consist of age, marital status, and income. According to the characteristic of each segment, the researchers separate into three clusters which are named as Young Professional, Married Professional, and Empty Nesters because the age is the good criteria to separate them. The characteristics of each group are shown into table 4.

Table 4. Characteristics of each segment

Attributes	Overall	Segmentation <sup>1</sup>		
		Young Professional <sup>2</sup>	Married Professional	Empty Nesters <sup>3</sup>
Age		15 - 29	30 – 44	45 – 60
Marital		Single	Single	Married

<sup>1</sup> <https://www.analyticsvidhya.com/blog/2013/08/importance-segmentation-create/>

<sup>2</sup> <http://en.unesco.org/careers/young-professional>

<sup>3</sup> <http://www.authorviews.com/authors/brown2/obd.htm>

Attributes	Overall	Segmentation <sup>1</sup>		
		Young Professional <sup>2</sup>	Married Professional	Empty Nesters <sup>3</sup>
Education		Bachelor	Bachelor	Bachelor
Income (Baht)		10,001 – 20,000	20,001 – 30,000	20,001 – 30,000
Number of Travelers (Persons)		7 – 9	4 – 6	4 – 6
Attitude Determinants	4.39	4.32	<b>4.43</b>	<b>4.43</b>
Activity Initiation	4.14	4.10	<b>4.18</b>	4.13
Accommodation Perspectives	4.13	4.11	<b>4.14</b>	4.13
Amenities and Advertising Communication	4.10	<b>4.12</b>	4.08	<b>4.13</b>
Accessibility Standard	4.24	4.21	<b>4.26</b>	<b>4.27</b>
Attractive Creation	4.25	4.21	<b>4.27</b>	<b>4.32</b>
Attending Intention	4.29	4.25	<b>4.30</b>	<b>4.39</b>
Percentage of Observation		<b>36%</b>	<b>48%</b>	<b>16%</b>

Note: Bold and italic numbers present the values above the average.

According to Young Professional segment, the age is between 15 – 29 years old with the income between 10,001 – 20,000 baht. They would like to travel with friends between 7 – 9 persons. The amenities and advertising communication are important to them for traveling in agro-tourism destination. However, this segment has the lowest attending intention to travel in agro-tourism.

Segment 2, Married Professional, has the age between 30 – 44 years old with income between 20,001 – 30,000 baht. They would like to travel with friends between 4 – 6 persons. The attributes that are important to them to travel in agro-tourism consist of attitude determinants, activity initiation, accommodation perspectives, accessibility standard, and attractive creation. This segment is the second rank in having attending intention to travel in agro-tourism.

Lastly, Empty Nesters segment, the age is between 45 – 60 years old with income between 20,001 – 30,000 baht. They still would like to travel with friends between 4 – 6 persons. The attributes that are important to them to travel in agro-tourism consist of attitude determinants, amenities and advertising communication, accessibility standard, and attractive creation. This segment has highest attending intention to travel in agro-tourism.

Table 5. Fit statistics of the final model

Model	N	CMIN/DF	GFI	AGFI	NFI	IFI	CFI	RMR	RMSEA
Final Model	409	1.699	0.872	0.827	0.902	0.905	0.902	0.040	0.029

According to table 5, the model is acceptable because degree of freedom (CMIN/DF) should not exceed 3.00 (Kline, 2004). Although GFI and AGFI are lower than the recommended threshold of 0.90, they are not relied upon as standing alone index (Hooper, Coughlan, & Mullen, 2008) because the values are affected by the sample size. NFI and IFI are recommended to be good fit when its value is greater than 0.90 (Bentler & Bonett, 1980). The value of CFI should be higher than 0.95 (Hu & Bentler, 1999). The threshold of RMR and RMSEA to indicate suitable fit model should be below 0.06 (Hu & Bentler, 1999)

Table 6. The standardized estimation between determinants and attending intention

Dependent Variable: Attending Intention	Overall	Young Professional	Married Professional	Empty Nesters
R <sup>2</sup>	0.558	0.599	0.528	0.674
Attitude Determinants	0.140	0.243	0.099	-0.055
Activity Initiation	0.234**	0.658***	0.194	-0.088
Accommodation Perspectives	-0.011	0.041	-0.082	-0.080
Amenities and Advertising Communication	0.538***	0.326*	0.453**	0.700***
Accessibility Standard	0.058	-0.002	0.085	0.252
Attractive Creation	-0.160	-0.481**	0.037	0.089

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.001

According to effect analysis as shown in table 6, in overall perspective, activity initiation, amenities and advertising communication have significantly positively affected the attending intention with standardized effect 0.234 and 0.538, respectively. Moreover, the effect has been analyzed into each segment. For Young Professional perspective, activity initiation and amenities and advertising communication have significantly positively affected the attending intention with standardized effect 0.234 and 0.538 whereas attractive creation has significantly negatively affected with standardized effect -0.481.

For middle and Empty Nesters, the significant determinant that has the effect to attending intention in agro-tourism is only amenities and advertising communication with standardized effect 0.453 and 0.700, respectively. According to the result, amenities and advertising communication are significant for all segments. Hence, the agro-tourism destinations should be able and hurry to communicate and promote their destinations to persuade them to travel to their destinations.

## Discussion and Conclusion

The research finding shows the effect between 6 determinants and agritourists travelling intention in agro-tourism. Six factors that affect agritourists travelling intention consist of attitude determinants, activity initiation, accommodation perspectives, amenities and advertising communication, accessibility standard and attractive creation. This result is quite similar to the previous researches from Kumbhar (2012); Maneenetr and Ha Tran (2014).

However, the difference of agritourist's travel intention toward agro-tourism around Eastern Coastal Region of Thailand is ancillary service; agritourists do not require the comfortable and other services during agro-tourism trip. They would like to be harmonized with natural environment as much as possible.

However, Agro-tourism destinations in Eastern Coastal Region should still prepare and develop their destinations following the mentioned six factors of agritourists travelling intention to attract and motivate agritourists travelling to obtain higher level of agritourists' satisfaction and loyalty. However, the demographic of agritourists, three age ranges are considered and classified into three categories; young professional, married professional and empty nesters.

The components affecting to young professional are activity initiation, amenity and advertising communication, and attractive creation factors because they like to explore the new activity. In addition, they are able to access and get the information through social media and technology comfortably. Thus, they prefer to travel in agro-tourism where provide the basic facilities to make them satisfy.

Currently, they perceive that the agro-tourism destination is not attractive which affect behavioral intention to travel negatively. The married professional and empty nesters concern only one factor which is amenity and advertising communication to motivate them to travel in agro-tourism destination. The information of agro-tourism should be disseminated widely including with amenities information.

The amenities should be provided to support the tourists' traveling. Despite the affecting agritourists traveling results are divided by following three aging categories, it is easy to refer to owner of agro-tourism developing in order to attract agritourists to travel in their agro-tourism. If the owner can manage their agro-tourism destination as following as the components in each segment, it will be benefit to convince the tourists to travel their agro-tourism.

## Recommendations

According to the study of agritourist's expectation, the recommendations are described as following:

1. In overall perspective and every segment, travelers would like to know the information of each destination. They miss the useful information for their learning; they would like to reach the information easily. The advertising communication instruments, such video, brochure, social media, should be used to disseminate the information and to promote the agro-tourism activities. In addition, the local tour guide is also recommended to welcome, guide and facilitate the tourists during their visiting.
2. In overall perspective and Young Professional, the agro-tourism destination should provide various activities to agritourists. Activities are able to persuade the tourists' interest to travel in agro-tourism such as picking fruits, leaning to grow some fruits or studying the sufficiency Economic Philosophy in agro-tourism destinations. For illustration, the activities that relate to Philosophy of Sufficient Economy, are trendy and conform to Thailand 4.0 policy. The tourists are ready and interested to learn for gaining agricultural knowledge.

3. Lastly, for Young Professional, the people in this generation are looking for entertainment and challenging activities. The learning of organic farm or agriculturists' lifestyle might not be interested to them. Agro-tourism business owners should provide the challenging activities such as adventure stations, zipline, quickjump or jungle coaster as in Pong Yang at Chiang Mai (Source: <http://pongyangadventure.com>).
4. Agro-tourism destination has to develop the modern technology to support the information announcement, accommodation reservation system to interact and motivate the new generation travelling that affects to increasing revenue and agritourists' satisfaction.

### Further research

The components of research in this study might not enough to motivate agritourist to travel in agro-tourism destinations. Marketing strategy should be mixed in study because lacking of communication or marketing strategy are disadvantage. Nobody knows what the interesting activities provided to tourists. In addition, agro-tourism destinations' characteristics are different in each region; the research model can be modified and adapted into other regions. For instance, paddy planting is mainly agriculture activity in center of Thailand, the research model to foster the agro-tourism destination in the center of Thailand can be adopted to improve the quality of agro-tourism destination.

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# Index Futures Introduction and Spot Market Volatility: The Case of Thai Stock Market

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## Abstract

The study examines the relationship between SET50 index futures introduction and the change of spot index volatility in Thailand. There are several studies examine stock market and the underlying assets volatility structural change when futures contract is introduced in the particular countries. Different thoughts of view emerge from several studies on this issue and results on futures introduction are somewhat ambiguous. The results show that index futures introduction leads to more spot market efficient, more price stability, and less mispricing in Thai stock market. The study also examines the relationship between factors in futures market (futures trading volume, futures open interest, and futures trading transaction) and the change of spot SET50 index volatility in Thailand. The results shows that SET50 index futures trading volume positively relates to the change of spot SET50 index volatility. The results also support that the more players (numbers of futures open interest outstanding) in futures market enhance price discovery, market efficient, and reflect more market dimension to parties in both spot and futures markets. Moreover, the study suggests that foreign investors invest in Thailand Futures Exchange (TFEX) for hedging purpose. Foreign investors normally hold a large amount of underlying stocks in spot market. If spot market volatility increases considerably, they tend to open futures positions in TFEX to manage their desired risks in portfolios to protect losses in spot market. Moreover, local institution investors will not create the excess spot SET50 volatility. In consequence, local institution investor generally improves market efficiency and finally leads to market stabilization. Lastly, local investors tend to invest in futures market because high degree of leverage and may see a new opportunity to make more profit. In summary, local investors often create excess spot market volatility in Thailand.

**Keywords:** Futures contract, Open interest, SET50 index, Thailand Futures Exchange (TFEX)

## Introduction

Futures contract is a standardized instrument and it trades on an organized futures exchange and guaranteed default by daily settlement of gain and loss (Chance, 2012). The introduction of futures market gives benefits to participants in several ways, for examples, encourage price discovery, increase market efficiency, and increase leverage (Hull, 2009; Chance, 2012). There are several studies regarding the effect of futures market introduction to spot market volatility around the world and the results of study are still inconclusive. Most studies confirm that the futures market introduction significantly changes spot market volatility in certain directions (Niederhoffer & Zeckhauser, 1980; Figlewski & Kon, 1982; Edwards, 1988; Schwert, 1990; Harris, 1989; Antoniou & Holmes, 1995; Gulen & Mayhew, 2000; Ray

& Panda, 2011; Gahlot, 2013). Organized futures exchange in Thailand is called Thailand Futures Exchange (TFEX) and it was established in year 2004. The relationship between TFEX market introduction and spot market volatility is still in puzzled and questioned by academics and practitioners. Therefore, it leads to motivation of the study to examine the relationship between futures market introduction and the change of spot market volatility in Thailand. The study aims to investigate the relationship between SET50 index futures introduction and the change of spot SET50 index volatility in Thailand. Moreover, the study examines factors in futures market (futures trading volume and futures open interest) and the change of spot index volatility. Lastly, the study also examines the relationship between futures trading transaction (buy/sell) of different types of investor and the change of spot SET50 index volatility.

There are three main groups of investor in Thailand Futures Exchange (TFEX) that are foreign investor, local institution investor, and local investor (TFEX, 2016). The size of Thailand Futures Exchange (TFEX) is quite small when compared with futures markets in developed countries around the world. The highest monthly futures trading volumes in TFEX was 3,509,617 contracts during September, 2016. Moreover, the numbers of monthly futures open interest in Thailand Futures Exchange (TFEX) varies during year 2011 to 2016. The highest numbers of monthly futures open interest amounts was 317,577 contracts during September, 2015 and the lowest was 106,470 contracts on December, 2011. It seems that the size of TFEX is quite small and reflects less futures market dimension. TFEX heavily needs additional money and participants coming into the market to convey more signal and information to investors.

## Literature Review

### Index Futures Introduction and the Change of Spot Market Volatility

The relationship between futures market and the change of spot market volatility is still inconclusive. Some studies found the positive relationship between futures market introduction and the change of spot market volatility (Harris, 1989; Antoniou & Holmes, 1995; Gulen & Mayhew, 2000; Ray & Panda, 2011; Gahlot, 2013). In contrast, some studies found the negative relationship between them (Niederhoffer & Zeckhauser, 1980; Figlewski & Kon, 1982; Edwards, 1988; Schwert, 1990). Previous studies found the positive relationship between futures market introduction and the change of spot market volatility in developed countries. Maberly, Allen, & Gilbert (1989) and Harris (1989) examined the relationship between index futures and the change of spot S&P volatility structure. They found out that spot S&P volatility increases when index futures was come to play in the US market. Maberly et al. (1989) examined the difference of volatility of S&P index during year 1882 to 1887.

The results showed that the volatility increases after S&P futures introduction. They also considered extend to the post-crash period in 1888 and the results also showed the increased in volatility. Harris (1989) used covariance cross-sectional analysis of regression model to measure the mean differences between S&P 500 index stocks and non S&P 500 index stocks. The results showed that S&P index stocks have higher volatility when compared with non S&P 500 index stocks. The increase was very significant during year 1985 but in short time interval. Antoniou and Holmes (1995) examined FTSE-100 stock index futures contract during the period of November 1980 to October 1991 in United Kingdom. They used family of GARCH techniques in the study.

Antoniou and Holmes (1995) removed market wide factor that influences on spot price change by using Unlisted Securities Market (USM) as a market-wide factor proxy. Unlisted Securities Market (USM) was used to extract market factor that influences spot market volatility rather than futures itself. They did not use FT All Share index, the FT 500 index, and

the FT 30 index because of highly correlated with FTSE-100 index. Results showed that futures trading led to higher volatility in underlying spot market and FTSE-100 index futures affected to spot market volatility but it was not concern with speculators (Antoniou & Holmes, 1995). It related to the information that covey to futures market. Chang, Cheng, & Pinegar (1995) investigated the impact of futures introduction in Tokyo stock exchange. Their findings showed that futures trading increases spot portfolio volatility (Chang et al., 1995). Only Nikkei stocks were directly affected by futures trading. Their findings suggested that futures trading increases spot portfolio volatility by decreasing the cross-sectional dispersion of security returns. These findings suggested that futures-related basket trading strategies increase spot asset volatility and this increase is not diversifiable (Chang et al., 1995).

Gulen and Mayhew (2000) also studied futures introduction in 25 countries in US, Europe, and Asia by using GARCH model. The results were mixed in several countries and it confirmed Chang et al (1995) that futures trading relates to the increase in conditional volatility in Japan and also in US. They also followed Bessembinder and Seguin (1992) to examine futures open interest and futures trading volume. The findings indicated that volatility decreases in period of high open interest in most countries and volatility increases in period of high volume and caused by unexpected volume component. Nel and Kruger (2001) also studied the relationship between stock index futures introduction and spot market volatility in South Africa Futures Exchange (SAFEX). They used one tailed tests, hypothesis test at a significance level of 0.05, and the F Distribution used as test statistic. The findings also supported Gulen and Mayhew (2000) that futures contracts relate to higher volatility in the underlying spot market but in short term period before futures contract expirations.

Moreover, Chelley-Steeley (2008) investigated single stock futures contract in Euronext-Liffe and the results showed that stock market volatility increases after futures introduction. Contrarily, several researchers found that futures market introduction enhance stability in spot market (Niederhoffer & Zeckhauser, 1980; Figlewski & Kon, 1982; Edwards, 1988; Schwert, 1990). Most studies in developed countries especially in the US conclude that futures market introduction significantly relates to spot market stabilization. Niederhoffer and Zeckhauser (1980) indicated that index futures can help to reduce speculative activity away from spot market. Trading in index futures could be proved that beneficial to anyone who invests in stock market. Some traders can be used futures as a hedging purpose. On the other side, speculator may see a new opportunity that is particularly attractive because futures market offers significant leverage (Niederhoffer & Zeckhauser, 1980).

However, the net result may be much greater stability in the spot market for these securities. Similar to Figlewski and Kon (1982), they indicated that stock index futures like S&P 500 and the Value Line Index can help investors benefit from hedging opportunity because stock index futures are proposed on aggregate market index. They concluded that stock index futures allow investors to alter the risk characteristic very easily both of active portfolio and passive portfolio (Figlewski & Kon, 1982). Edwards (1988) studied S&P 500 index and Value Line Contract before and after futures introduction period in US. The results showed clearly that volatility tends to decrease when futures market traded. Tosini (1988) examined the role of S&P index futures on spot market index during October 1987 in US. Tosini (1988) indicated that 70 percent of open interest in S&P index futures held by commercial traders. They normally held futures for hedging and arbitrage purpose instead of speculation. Therefore, S&P 500 index futures market did not lead to spot market volatility during October 1987, it enhanced stability instead. However, Schwert (1990) examined several academic papers and attempted to find out policies to decrease stock market volatility in US. Schwert (1990) showed that there are only few evidences to relate stock market volatility to futures or option. It was unclear whether futures and option introduction causes higher volatility in spot market.



Antoniou and Holmes (1995) examined FTSE-100 stock index futures contract during the period of November 1980 to October 1991 in United Kingdom. Results showed that futures trading led to higher volatility in underlying spot market and FTSE-100 index futures affects to spot market volatility but it is not concern with speculators. It related to the information that covey to futures market. After that, Antoniou et al. (2005) extended the study to other countries like Canada, France, Germany, Japan, and the US. In contrast, the results showed that futures market can help to stabilize the spot market by reducing impact of feedback traders and attracting more rational investors into the market. Overall results indicated that futures market introduction can help to stabilize prices. The explanation behind different results in UK was because longer period of time of study.

Therefore, results of futures introduction in UK changed from futures market can lead to higher spot market volatility into lower spot market volatility instead. Matanovic and Wagner (2012) examined DAX futures market in Germany by using GARCH model during year 1970 to 2009. The results also supported Antoniou et al (2005) that DAX futures trading related to volatility reduction in German spot market. They applied two approaches in the study that are testing for structural break in long-term volatility of DAX return and testing for structural break in dynamics of conditional volatility of DAX returns. They also relaxed GARCH (p,q) specification to a maximum order of 5 lags to specify the properly and reliable model to find for the best fitting GARCH model in the study. Similar to developed countries, there are plenty of previous studies examine the relationship between futures market introduction and the change of spot market volatility in emerging countries. Several previous studies found the positive relationship between them in emerging countries. Ray and Panda (2011) and Gahlot (2013) investigated the relationship between futures market introduction and the change of spot market volatility in Indian stock exchange by dividing period of study into pre-futures period and post-futures period. Ray and

Panda (2011) used GARCH model to examine the relationship between futures market introduction and the change of spot market volatility and found that 8 out of 15 stocks in the study experiences changes in volatility pattern after futures introduction. Gahlot (2013) studied the impact of futures trading on the top 7 companies in automobile sector and engineering sector by using EGARCH M model in India. Gahlot (2013) also used lagged return of S&P 500 index to determine spillover effect between Indian and US market. The findings also indicated that futures trading increases volatility for stocks on both automobile sector and engineering sector. Several previous studies found no significant relationship between futures market introduction and the change of spot market volatility in emerging markets. Gahlot, Datta, & Kapil (2010) examined the impact of S&P CNX Nifty during year 2002 to 2005. They used GARCH model to capture the stock market volatility. However, they suggested that there is no significant change in S&P CNX Nifty volatility. Moreover, Shenbagaraman (2003) and Debasish (2009) studied impact of futures introduction and also stock index option to spot market in India. Shenbagaraman (2003) used GARCH (1,1) model to test daily closing price during year 1995 to 2002 and removed lagged world return, day of the week effects, and market-wide factors that influences Nifty return out of the study. The results showed that futures market introduction has no significant impact on spot market volatility.

Debasish (2009) used several GARCH techniques to study the effect of futures market introduction on the price volatility of Nifty spot market during year 1997 to 2007 in India. As examining several GARCH model, Debasish (2009) found that the most appropriate model for the study of volatility is GARCH (1,1) model. Results were consistent with Shenbagaraman (2003) that futures market introduction reveals no significant change of volatility. The study considered different volatility measurements to avoid test sensibility. The results confirmed that there is no structural change after futures trading introduction except for the weekly price change method.



Furthermore, several previous studies found that futures market introduction enhances spot market stabilization in emerging markets. Gahlot and Datta (2012) examined the impact of futures market introduction in Brazil, Russia, India, and China (BRIC) stock market by using GARCH M model and also investigated day of the week effects in BRIC market. The results of GARCH M model implied that futures market introduction leads to volatility reduction in Indian stock market. Chen, Han, Li, & Wu (2012) examined the change of spot market volatility due to futures market introduction in China. They employed panel data evaluation approach to construct counterfactual of spot volatility based on correlations between China stock market and international stock markets and several domestic macroeconomic indicators. Chen et al. (2012) examined the changes of market volatility of China Securities Index (CSI) 300 index which is commonly used as a proxy of Chinese stock market.

The effects of index futures to spot market volatility can be measured by the differences between observed values and the counterfactual prediction. The results indicated that index futures introduction significantly decreases volatility of spot Chinese market. Their findings confirmed that index futures market improves information efficiency and offers investor for risk management tools. However, Xie and Huang (2014) investigated Chinese stock market by using daily data of CSI index during year 2005 to 2012. They employed several GARCH models technique to find the best fitted model. The results from GARCH M model suggested that the CSI index futures did not significantly affect to the overall of spot market or influence the nature of the particular volatility. One possible reason behind insignificant result was that the stock index futures mechanisms and relevant market regulations are still undeveloped. The study would like to find the relationship between index futures introduction and the change of spot index volatility. As Thailand is one of the emerging countries and Thailand Exchange Futures (TFEX) is a newly established derivative market in the world. Therefore, the results of study are interested by academics who study about futures market in emerging markets. Moreover, the study examines the relationship between futures trading transaction (buy/sell) of different types of investor (foreign investor, local institution investor, and local investor) and the change of spot index volatility. Segregating the trading transaction into different types of investor would enable the study to examine the relationship in more details and enhance the accuracy of the analysis. This study will be a starting point to extend the further study to other indexes in Thai stock market and also other factors in futures market apart from futures trading volume, futures open interest, and futures trading transaction of different types of investor.

### **Futures Trading Volume and Futures Open Interest**

Futures trading volume and futures open interest are important factors in futures market. Several previous studies investigated the impact of futures trading volume and futures open interest factors to the change of spot market volatility and found different results (Bessembinder & Seguin, 1992; Daigler & Wiley, 1999; Gulen & Mayhew, 2000; Floros, 2007; Lin, 2010; Pati, 2010; Sharma & Malhotra, 2015; Maitra, 2014). Chen, Cuny, & Haugen (1995) examined the relationship between spot market volatility and basis and open interest of S&P 500 stock index futures. They confirmed that as spot market volatility increases, the basis of futures decrease, and open interest of S&P 500 index futures increases. They explained that when stock market goes down, investors tend to sell stocks and futures, and leads to overall market higher volatility (Chen et al., 1995). Therefore, new market equilibrium was characterized by lower futures basis and higher futures open interest. In contrast, when the overall market volatility decreased, the new equilibrium was characterized by higher futures basis and lower futures open interest. However, several previous studies found that futures trading volume positively relates to excess spot market volatility.

In contrast, futures open interest negatively relates to excess spot market volatility. Bessembinder and Seguin (1992) examined relations between spot and futures trading activity (volume and open interest) and S&P index volatility during January 1978 to September 1989. They partitioned volume and open interest into expected and unexpected component. First of all, Bessembinder and Seguin (1992) de-trended data by deducting 100-day moving average from volume and open interest data. Then, they partitioned the de-trended data into expected component and unexpected component by using ARIMA (0,1,10). Expected component was calculated by previous day that reflects forecasted activity and unexpected component is a shock. Bessembinder and Seguin (1992) found that spot trading volume positively relates to equity volatility. The results showed that unexpected component has larger affect than the expected component. Moreover, they also found that unexpected futures volume component positively relates to spot market volatility. In contrast, futures open interest negatively related to spot market volatility.

Moreover, Bessembinder and Seguin (1993) extended study to physical and financial futures markets (currency market, metal market, agricultural commodities, and financial contracts) during May 1982 to March 1990 in US. They examined relations between futures volatility, futures trading volume, and market dept (open interest). They partitioned futures trading volume and market dept (open interest) into expected component and unexpected component. The result showed that futures volatility positively relates to expected and unexpected volume component. The results also supported Bessembinder and Seguin (1992) that unexpected volume component has larger effect on volatility. Unexpected volume component was seven times larger effect than expected volume component. They also found that futures volatility negatively relates to expected open interest component in all futures market. Therefore, the deeper market dept led to lower futures volatility. Daigler and Wiley (1999) examined the relationship between volatility and volume in futures markets by using data categorized by trader type (clearing member, floor trader, and general public). They found that unexpected volume component is very important to explain market volatility especially for general public type. This finding supported dispersion of beliefs hypothesis that traders who have heterogonous beliefs and lack of precise information are unable to differentiate liquidity demand from the fundamental value changes and then create short term volatility in futures market.

Furthermore, Gulen and Mayhew (2000) and Shenbagaraman (2003) extended work of Bessembinder and Seguin (1992) in different markets around the world. Gulen and Mayhew (2000) also studied the effect of futures market introduction in 25 countries in US, Europe, and Asia by using GARCH model. The results were mixed in several countries and it confirmed Chang et al (1995) that futures trading relates to the increase in conditional volatility in Japan and also in US. They also followed Bessembinder and Seguin (1992) to examine futures open interest and futures trading volume. The findings indicated that volatility decreases in period of high open interest in most countries and volatility increases in period of high volume and caused by unexpected volume component. Shenbagaraman (2003) used GARCH (1,1) model to test daily closing price during year 1995 to 2002 and removed lagged world return, day of the week effects, and market-wide factors that influences Nifty return out of the study. The results showed that futures market introduction has no significant impact on spot market volatility. Shenbagaraman (2003) also followed Bessembinder and Seguin (1992) by decomposing futures trading volumes and futures open interest into expected component and unexpected component. Unfortunately, Shenbagaraman (2003) did not find any linkages between futures trading volumes, futures open interest, and spot market volatility.

Kuo, Hsu, & Chiang (2005) examined relations among futures trading volume, futures market dept, and price volatility of several futures contracts that traded in Taiwan Futures Exchange and Singapore Exchange Derivatives Trading Division by using OLS method and

GARCH model. The result showed that volatility increases when futures trading volumes are high. However, market depth was not significantly related to market volatility. Kuo et al. (2005) explained that it is reasonable because the relationship between market depth and market volatility depends on market maturity. They also conclude that market volatility increases because of futures trading expected volume component rather than unexpected component. Floros (2007) studied the relationship between stock index futures price and open interest by using GARCH (1,1) model in Greece. The result showed that futures open interest negatively relates to futures price volatility. The finding was in line with Bessembinder and Seguin (1992). Moreover, cointegration test showed long run relation between futures open interest and futures price. Floros (2007) suggested that futures open interest can use to predict futures price in long run. Therefore, market depth did not have effect on Greek stock index futures price changes.

Moreover, Hou and Li (2015) examined the China Securities Index (CSI) 300 index futures and the results showed that CSI 300 index futures market leads to excess spot market volatility. Futures trading volume significantly related to both CSI 300 futures market and spot market. Therefore, futures trading volume was one of important variables to both spot market and index futures market volatility. Several studies consider adding futures products for hedging purpose to eliminate or offsetting the loss from price fluctuation situation. Techarongrojwong, Sinliamthong, & Waranyasathit (2017) examined the role of RSS3 futures as a hedging product for stock market in Thailand. The results showed that there is no significant relationship between RSS3 futures and the stock market. In conclusion, RSS3 futures could be added in portfolio for hedging purpose in general. Moreover, Techarongrojwong et al (2017) suggested that RSS3 futures can help to diversify the risk especially during the market downturn period. Tangjitprom, Chavalittumrong, & Leelalai (2016) investigated real estate funds whether provide diversification benefits to investors in Thai stock market by using regression analysis. The results showed that there is a positive relationship between return of real estate funds and return of stock market. However, Tangjitprom et al (2016) mentioned that real estate funds are still attractive and provide diversification benefits to investors because of low beta of real estate funds and outperforming returns when compared with returns of stock market overall.

## Data and Research Methodology

The study aims to examine the relationship between SET50 index futures introduction and the change of spot SET50 index volatility in Thailand by using secondary data on daily basis during year 2003 to 2016. The study uses two methods of GARCH model that are standard GARCH model and Exponential GARCH (EGARCH) model as statistical tools to examine the spot market volatility. Initially, the standard GARCH model is more preferable because several previous studies strongly confirmed that using simple model is more accurate and reliable when compared with complicated methods. However, the study also uses EGARCH model in the study to eliminate several limitations of simple GARCH model that are allowance for nonnegative parameters, asymmetric response, and leverage effect in the study. Therefore, standard GARCH model and EGARCH model are both suitable to use as statistical tools in the study. The study uses the first difference proceeding non-stationary data. Therefore, all values of test statistic are less than critical values which conclude that all of the proceeded data are stationary data. Furthermore, when all data are converted to stationary data, the study will find the best Autoregressive Moving Average (ARMA) model by using correlogram test and then generates volatility equation from GARCH ( $p,q$ ) model and EGARCH ( $p,q$ ) model with all combinations of  $p = 1,2$  and  $q = 1,2$ . The study selects the best GARCH ( $p,q$ ) model and EGARCH ( $p,q$ ) model by choosing from the minimum number of Schwarz Criterion (SIC) model.

The study concludes that the best model of the study requires to provide the lowest number of SIC when compared with other models. Finally, the study uses the best model to estimate the conditional variance of the data and analyzes the results of the study. Moreover, the study follows Antoniou and Holmes (1995) by using Market for Alternative Investment (MAI) index which was established by the Stock Exchange of Thailand (SET) acts as a stock market for small and medium-sized listed companies to proxy the market factor in the study. The study uses MAI index because MAI index trades in stock market and reflects the market conditions, circumstance, and incoming news. The study extracts market factor as one variable in the model to eliminate market risk may influence to spot index volatility instead of index futures trading itself. Even SET index and SET100 index are traded in stock market and also reflect the market condition as well as MAI index but they are not suitable to use in the study because of highly correlation with SET50 index and may cause bias of the results.

Therefore, MAI index is more preferable when compares with SET index and SET100 index. The study also determines the financial crisis period by following work of Patel and Sarkar (1998). Crisis defines as the event of stock market decline relative to the historical maximum more than 20 percent for developed market and 35 percent for emerging market (Patel & Sarkar, 1998). During the period of the study, it captures the market declined relative to the historical maximum more than 35 percent during May 21, 2008 to August 19, 2010 in Thailand. Beginning of the subprime crisis started on May 21, 2008 when the stock index reached its historical maximum 884.19 points prior to the date when the crash happened. SET index declined to 528.71 points relative to the historical maximum more than 35 percent on October 7, 2008 and reached to the lowest at 389.81 points on November 27, 2008. Finally, SET index recovered to 891.23 points on August 19, 2010 reached back to pre-crash maximum level after the crashes happens. The equation of SET50 index is shown as below:

$$\sigma^2 SET50_t = (\text{Selected GARCH/EGARCH typed models variables}) + a_0 + a_1 RMAI_t + a_2 DCRISIS_t + a_3 DFUTURES + a_4 VOL + a_5 OI + a_6 FB + a_7 FS + a_8 IB + a_9 IS + a_{10} LB + a_{11} LS$$

#### Where:

$\sigma^2$  = Conditional variance

$SET50_t$  = Change in daily spot SET50 index

$RMAI_t$  = Change in daily Market for Alternative Investment (MAI)

$DCRISIS_t$  = Financial crisis, use dummy variable “0” when not during financial crisis period and “1” when during financial crisis period

$DFUTURES$  = SET50 index futures introduction, use dummy variable “0” pre-SET50 index futures period and “1” post-SET50 index futures period

$VOL$  = SET50 index futures Trading Volume

$OI$  = SET50 index futures Open Interest

$FB$  = Foreign investor buy SET50 index futures contract

$FS$  = Foreign investor sell SET50 index futures contract

$IB$  = Local institution investor buy SET50 index futures contract

$IS$  = Local institution investor sell SET50 index futures contract

$LB$  = Local investor buy SET50 index futures contract

$LS$  = Local investor sell SET50 index futures contract

The study assumes that local institution investor is classified as an informed investor. Therefore, futures trading transaction of local institution investor should not create excess volatility, noise, and mispricing in spot index market. On the contrary, futures trading transaction of local institution investor should reduce spot market volatility or influence the market to stay average and insignificant instead. For local investor, the study assumes that local

investor is included of individual investor who interested to open position base on their particular perception. Local investor can recognized as an uninformed investor. Therefore, the study considers that there will be a significant relationship between futures trading transaction of local investor and the change of spot SET50 index volatility. In summary, futures trading transaction of local investor should create excess volatility, noise, and mispricing in spot index market.

### Empirical Results

The study uses Dickey-Fuller model for testing data non-stationary. Augmented Dickey-Fuller (ADF) test is an autoregressive model. The study selects the best GARCH ( $p, q$ ) model and EGARCH ( $p, q$ ) model by choosing from the minimum number of Schwarz Criterion (SIC) model. Finally, the study uses the best model to estimate the conditional variance of the data and analyzes the results of the study. The summary of testing hypothesis in the study is shown in the table as:

#### Summary of Hypothesis 1 to Hypothesis 9 Results

	Null Hypothesis (Ho)	Z-Stat	Prob.	SIC
1	There is no significant relationship between SET50 index futures introduction and the change of spot SET50 index volatility	-2.637314	0.0084	-5.916356
2	There is no significant relationship between SET50 index futures trading volume and the change of spot SET50 index volatility	7.795806	0.0000	-6.292470
3	There is no significant relationship between SET50 index futures open interest and the change of spot SET50 index volatility	-7.353926	0.0000	-6.292470
	Null Hypothesis (Ho)	Z-Stat	Prob.	SIC
4	There is no significant relationship between foreign investor buy volume in futures market and the change of spot SET50 index volatility	-4.661508	0.0000	-6.292470
5	There is no significant relationship between foreign investor sell volume in futures market and the change of spot SET50 index volatility	-2.501453	0.0124	-6.267455
6	There is no significant relationship between local institution investor buy volume in futures market and the change of spot SET50 index volatility	1.013683	0.3107	-6.292470
7	There is no significant relationship between local institution investor sell volume in futures market and the change of spot SET50 index volatility	-1.761834	0.0781	-6.267455
8	There is no significant relationship between local investor buy volume in futures market and the change of spot SET50 index volatility	2.397891	0.0165	-6.292470
9	There is no significant relationship between local investor sell volume in futures market and the change of spot SET50 index volatility	2.479714	0.0131	-6.267455



The result shows that hypothesis 1 rejects null hypothesis at 1% significance level. In other word, there is a negative relationship between SET50 index futures introduction and the change of spot SET50 index volatility. It can be said that spot SET50 index volatility decreases significantly since SET50 index futures introduced in Thailand. The result shows that the spot market is more efficient since SET50 index futures started to trade in Thailand. Furthermore, SET50 index futures introduction enhances the spot price stability and reduce spot market mispricing.

From hypothesis 2, the result shows that hypothesis 2 rejects null hypothesis at 1% significance level. Therefore, there is a significant relationship between SET50 index futures trading volume and the change of spot SET50 index volatility structure. The relationship between index futures trading volume and the change of spot index volatility can be explained by Clark (1973) Mixture of Distribution Hypothesis. Clark (1973) explains about the volume and volatility relationship and also proxies the changing of variance of price changes by volume. Karpoff (1987) also indicates that Mixture of Distribution Hypothesis (MDH) refers to conditional variance of price change proportionally to volume. The result shows that SET50 index futures trading volume positively relates to the change of spot SET50 index volatility. The result of study is in line with several previous works in other countries (Bessembinder & Seguin, 1992; Bessembinder & Seguin, 1993; Daigler & Wiley, 1999; Girard & Omran, 2009; Lin, 2010; Maitra, 2014; Sharma & Malhotra, 2015).

In summary, the more numbers of SET50 index futures trading volume in Thailand Futures Exchange (TFEX) will bring to higher spot SET50 index volatility in Thai stock market. The result shows that hypothesis 3 rejects null hypothesis at 1% significance level. The result shows that SET50 index futures open interest negatively relates to the change of spot index volatility. In other words, when SET50 index futures open interest increases, the spot SET50 index volatility tends to decrease. When participants open positions in futures market, it will be counted as numbers of futures open interest outstanding.

The results show that when numbers of SET50 index futures open interest increase, the spot SET50 index volatility tends to decrease significantly. The result of study is in line with several previous works in other countries (Bessembinder & Seguin, 1992; Bessembinder & Seguin, 1993; Floros, 2007; Maitra, 2014). In summary, numbers of SET50 index futures open interest outstanding in Thailand Futures Exchange (TFEX) negatively relate to the change of spot market volatility. The results support that the more players (numbers of futures open interest outstanding) in futures market enhance price discovery, market efficient, and reflect more market dimension to parties in both spot and futures markets. Therefore, mispricing assets in both spot and futures market are eliminated by arbitrage strategies.

For foreign investor, the testing results show that both hypothesis 4 and 5 reject null hypothesis at 5% significant level. The results show that either buy or sell trading transaction of foreign investor in futures market negatively relates to the change of spot SET50 index volatility. In other words, all trading transactions of foreign investor in futures market reduce spot SET50 index volatility. The testing results suggest that foreign investors invest in Thailand Futures Exchange (TFEX) for hedging purpose. Foreign investors normally hold a large amount of underlying stocks in spot market. If spot market volatility increases considerably, they tend to open futures positions in TFEX to manage their desired risks in portfolios to protect losses in spot market.

In other word, foreign investors attempt to manage portfolios based on the primary functions of futures market that are providing price discovery and offering risk management tools. Moreover, futures market can provide the valuable information about the underlying asset prices on which futures contracts are based (Chance, 2012). It can be said that either buy or sell trading transactions of foreign investor in futures market are using for hedging purposes and their hedging positions tend to reduce spot market volatility as consequences.



For local institution investor, the testing results show that both hypothesis 6 and 7 are failed to reject null hypothesis at 1% significance level. The results show that there is no significant relationship between buy and sell trading transaction of local institution in futures market and the change of spot SET50 index volatility. In other word, either buy or sell transaction of local institution investor in futures market does not lead to the change of spot SET50 index volatility. The results of futures trading transaction of local institution investor is as expected that local institution investors will not create the excess spot SET50 volatility because local institution investors are informed traders and they are stock market specialties, know very well about stock market situation, and receive full of financial data to analyze market situation.

The testing results conclude that local institution investors in Thailand Futures Exchange (TFEX) rationally invest in futures market. In consequence, local institution investor generally improves market efficiency and finally leads to market stabilization (Daigler & Wiley, 1999). In summary, local institution investor is a proponent of market completion or market stabilization. For local investor, the testing results show that both hypothesis 8 and 9 reject null hypothesis at 5% significance level. The results show that either buy or sell trading transaction of local investor in futures market positively relates to the change of spot SET50 index volatility. In other word, trading transaction of local investor in futures market increases spot SET50 index volatility. The testing results conclude that local investors invest in Thailand Futures Exchange (TFEX) for speculative purposes.

Local investors tend to invest in futures market because high degree of leverage and may see a new opportunity to make more profit. Therefore, speculation generally leads to excess spot market volatility and fluctuation. The results of futures trading transaction of local investor is as expected that local investor is the investor who creates excess volatility in stock market because local investor is known as an uninformed trader. Uninformed trader often makes irrational investment decision and leads to increasing of volatility and destabilizing force in stock market. Moreover, local investor recognizes as a noise trader. The noise trader often trades in short-term strategy and then creates excess price volatility in stock market.

## Conclusions and Discussion

There are several studies examine stock market and the underlying assets volatility structural change when futures contract is introduced in the particular countries. Changing of spot market volatility structure and the roles of index futures introduction have received attentions from participants in financial market. All academics and practitioners in financial markets concern about the impact of index futures introduction on the underlying spot index market. Different thoughts of view emerge from several studies on this issue and results on futures introduction are somewhat ambiguous. The study would like to examine the relationship between SET50 index futures introduction and the change of spot SET50 index volatility in Thailand by using secondary data on daily basis during year 2003 to 2016.

The study uses 2 methods of GARCH model that are standard GARCH model and Exponential GARCH (EGARCH) model as statistical tools to examine the spot market volatility with all combinations of  $p = 1, 2$  and  $q = 1, 2$  to examine the best fitted result of the study. Moreover, the study determines 2 factors that are market factor and financial crisis factor to extract and eliminate the risks that may influence to the change of spot index volatility structure rather than the effect from index futures introduction factor itself. The results show that the spot market is more efficient since index futures started to trade in Thailand. The testing results strongly support that SET50 index futures introduction leads to more spot market efficient, more price stability, and less mispricing in Thai stock market.

The study also examines the relationship between factors in futures market (futures trading volume and futures open interest) and the change of spot index volatility in Thailand. The testing results of futures trading volume show that SET50 index futures trading volume positively relates to the change of spot index volatility. In other words, when SET50 index futures trading volume increases, the spot SET50 index volatility tends to increase as well. In summary, the more numbers of index futures trading volume in Thailand Futures Exchange (TFEX) will bring to higher spot index volatility in Thai stock market. The testing results of futures open interest show that SET50 index futures open interest negatively relates to the change of spot index volatility. In other words, when SET50 index futures open interest increases, the spot SET50 index volatility tends to decrease. In summary, numbers of SET50 index futures open interest outstanding in Thailand Futures Exchange (TFEX) negatively relate to the change of spot SET50 market volatility.

Lastly, the testing results suggest that foreign investors invest in Thailand Futures Exchange (TFEX) for hedging purpose. Foreign investors normally hold a large amount of underlying stocks in spot market. If spot market volatility increases considerably, they tend to open futures positions in TFEX to manage their desired risks in portfolios to protect losses in spot market. It can be said that either buy or sell trading transactions of foreign investor in futures market are using for hedging purposes and their hedging positions tend to reduce spot market volatility as consequences. The testing results of futures trading transaction of local investor conclude that local institution investors in Thailand Futures Exchange (TFEX) rationally invest in futures market.

In consequence, local institution investor generally improves market efficiency and finally leads to market stabilization (Daigler & Wiley, 1999). In contrast, the testing results of local investor show that either buy or sell trading transaction of local investor in futures market positively relates to the change of spot SET50 index volatility. Local investors tend to invest in futures market because high degree of leverage and may see a new opportunity to make more profit. Therefore, speculation generally leads to excess spot market volatility and fluctuation. The results of futures trading transaction of local investor is as expected that local investor is the investor who creates excess volatility in stock market because local investor is known as an uninformed trader. Uninformed trader often makes irrational investment decision and leads to increasing of volatility and destabilizing force in stock market. Moreover, local investor recognizes as a noise trader. The noise trader often trades in short-term strategy and then creates excess price volatility in stock market.

### **Recommendations and Further Researches**

The study provides academic contributions in several ways. The study examines the relationship between SET50 index futures introduction and the change of spot index volatility in Thailand. Moreover, the study examines the relationship between 2 factors in futures market (future trading volume and future open interest) and the change of spot index volatility. Academics are more interesting in the consequences of factors in futures market to spot index structural change. As Thailand is one of the emerging countries and Thailand Exchange Futures (TFEX) is a newly established derivative market in the world. Therefore, the results of study are interested by academics who study about futures market in emerging markets. Moreover, the study examines the relationship between futures trading transaction (buy/sell) of different types of investor (foreign investor, local institution investor, and local investor) and the change of spot index volatility. Segregating the trading transaction into different types of investor would enable the study to examine the relationship in more details and enhance the accuracy of the analysis. Moreover, the study can extend to further researches in the future.

This study will be a starting point to extend the further study to other products in Thai stock market and also other factors in futures market apart from futures trading volume, futures open interest, and futures trading transaction of different types of investor. The study also provides practical contributions to all participants in financial market. It will enable investors to prudently structure their strategies investing in both spot market and futures market. Results of the study can be used as the guideline of strategic investments for any portfolios in post-index futures period. Moreover, results of the study contribute to investors who construct portfolios based on factors in futures market (futures trading volume, futures open interest, and futures trading transaction) and used as the guidance of strategic investments. The study provides investors, fund managers, financial institutions, and general public with strategies to manage their portfolios effectively.

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# The Influence of Co-operative Education to Creativity – Base on Organizational Innovation Encouragement

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## Abstract

Collaborative innovation theory has been widely applied to explain university and enterprise cooperative education, but few know about how Technology University of China can find a right cooperative education way to enhance the quality of personnel training. In this paper, we argue that organizational innovation encouragement may be a mediator between university and enterprise cooperative education. The authors tested the hypotheses with data collected 427 students who had participated cooperative education form four Technology Universities, Guangxi, China. The results support the hypothesis that the university co-operative behavior and enterprise co-operative behavior have significant influence on the student's creativity. This study extends the research field of collaborative innovation and provides a new perspective in this theory.

**Keywords:** University Enterprise Cooperation Education; Organizational Innovation Encouragement; Creativity

## Introduction

Creativity is defined as the production of new and useful ideas concerning products, services, processes and procedures (Amabile, 1996; Oldham & Cummings, 1996; Shalley, 2004; Zhou, 2001). Research on student's creativity, as a sub-area in the field of micro organizational behavior, has had a relatively short history. The foundation for this research began in the late 2000s. In China, the shortage of innovative employee is expected to reach about 22 million in 2020. Therefore, the cultivation of innovative employee will be placed in front of a Chinese industrial impassable ridge (McKinsey, 2016). This research will focus on the new type of Technology Universities in China, and try to find the right way to teach students' creativity.

At present, the university enterprise cooperative education is the common way to train students at Technology Universities in China. The most of research are focused on the quality for participation such as production, learning and research. For quantitative research, Xu (2011) developed measurement scale to verify the knowledge sharing and knowledge acquisition process as an intermediary role. However, how to cultivate student's creativity? Can Technology Universities teach student's creativity through classes? Whether the Technology Universities could directly copy the cooperative teaching mode from traditional Chinese



universities? Amabile (1997), Zhou&George (2001), Yang(2011) researched on organizational innovation influence on creativity of encouragement. They have developed on the strategic human resource management field. Yang (2011) has verified encourage innovation through the intermediary function of belief role identity and effectiveness, impact on employees' creativity.

Based on the above theory, this research focused on the Technology Universities in Guangxi, China. We selected 427 students who had participated cooperative education, to explore how students could learn from two kinds of organization between universities and enterprises. On the other hand, students also can participate in practices through two different atmospheres and learn from different types of mentors in order to improve their creativity. Therefore, the research tries to explore organizational innovation encouragement as mediating variables, to influence student's creativity and promote the development of university enterprise cooperation as a new education mode.

### **Literature Review and Hypothesis**

Haken (1971) pointed out collaborative theory. It is defined as the complex system of each subsystem, mutual cooperation, mutual competition, which makes the whole system to form a new quality stable, orderly structure, ultimately achieve the effect of  $1+1>2$ . Bransford, Barron and Pea (2005) proposed that collaborative theory transplantation in the education field. To explore the play the self-organization ability of each subsystem in the education system, under certain conditions, the formation of cooperation, coordination, synchronization, complementary and collaborative effect. March (2010) pointed out a new employee performance could be decreased with the growth of experience accompany university experience learning error. He also found out the detailed implementation between experience knowledge and education knowledge management. Therefore, experience knowledge has a strong spatio-temporal focus. It can be directly applied to specific situations and academic knowledge emphasized the usefulness.

Collaborative innovation is a kind of long span integrated innovation organization pattern, including university, enterprises, government, agencies and other organizations. In the practice level, the researchers need to build collaborative innovation platform and organization to promote the collaborative innovation scientific development. Therefore, the authors should formulate policies and measures favorable to support with the development of collaborative innovation platform, increase investment to cultivate the comprehensive competitiveness of the R&D organization, take the initiative to strengthen domestic and international exchanges and cooperation, enhance the enterprise innovation ability because cooperation is emphasized. At the same time, the authors carry out educational activities of the cooperative, various social institutions have combined impact on students.

It can improve the efficiency and effect of education benefit. That means the information exchange from family, university, community are clear. It can be used to educate students in order to improve the effect of education efficiency. In this study situation, university enterprise cooperative education including university cooperative behavior and enterprise cooperative behavior, organizational innovation encouragement mainly refers to the university and enterprise organization created two kinds of innovative atmosphere for students.

## The mechanism of the impact of university enterprise cooperation education and creativity

In the literature, Jiang (2007), Jiang (2004) and Zhang (2006) discussed the university enterprise cooperation practice could significantly improve the students' creativity. Amabile (1997) found out the diversity and cultural complementarity of members could help each other to enhance the creativity. Zhou and George (2001) pointed out leadership support and coworker feedback can positively affect the creativity in working environment. Therefore, researchers believe that the university enterprise cooperation can be a good combination of theory and practice, and give full play to the university and enterprise in the creativity advantage. Students can learn from university and enterprises' tutors, through work and practice to complete the internalization and explicit knowledge, and thus has a significant impact on the creativity of students participating in the cooperation. Another important factor is when enterprise demand member from university to participate in technology research and development. The university is able to provide the appropriate candidates.

The most important point is the students can be employed by enterprises or find a job after they graduated. Therefore, many researchers have realized that the cooperation enterprises can bring different kinds of benefits to the university, such as a keen awareness of the market, business model teaching, entrepreneurship, leadership. Enterprises can offer a real working environment and assigned clear working tasks in order to help students to improve their creativity. Based on the above discussion and puts forward relevant hypotheses as follows:

*Hypothesis 1: University co-operative behavior is positively related to students' creativity.*

*Hypothesis 2: Enterprise co-operative behavior is positively related to students' creativity.*

### Mediating effect of organizational innovation encouragement

Employee's creativity is an important research topic in human resource management. Organizational innovation encouragement is also an important issue to creativity research field. It is a key factor affecting creativity. Organizational innovation encouragement is a part of KEYS measuring scale. It is divided into organizational creativity support, supervisory creativity support and colleague creativity support. It belongs to the study of organizational innovation atmosphere. Amabile (1997) found that organizational creativity within the psychological situation would affect the creative production, that explained the key influencing employees to create inner driving force and its working environment is closer.

In fact, there is a more profound logical relation, cooperation for leading enterprises, to encourage university organizational innovation between the two identities and support, and build a good atmosphere for the students' creative ability. University teacher and business mentor support, supervisor support and colleague support to further promote the students' creativity. Based on the above discussion and puts forward relevant hypotheses as follows:

*Hypothesis 3A: Organizational creativity support plays an intermediary role between university co-operative behavior and students' creativity.*

*Hypothesis 3B: Supervisory creativity support plays an intermediary role between university co-operative behavior and students' creativity.*

*Hypothesis 3C: Colleague creativity support plays an intermediary role between university co-operative behavior and students' creativity.*

*Hypothesis 4A: Organizational creativity support plays an intermediary role between enterprise co-operative behavior and students' creativity.*

*Hypothesis 4B: Supervisory creativity support plays an intermediary role between enterprise co-operative behavior and students' creativity.*

*Hypothesis 4C: Colleagues creativity support plays an intermediary role between enterprise co-operative behavior and students' creativity.*

Based on the above discussion, the empirical model is shown in Figure 1.

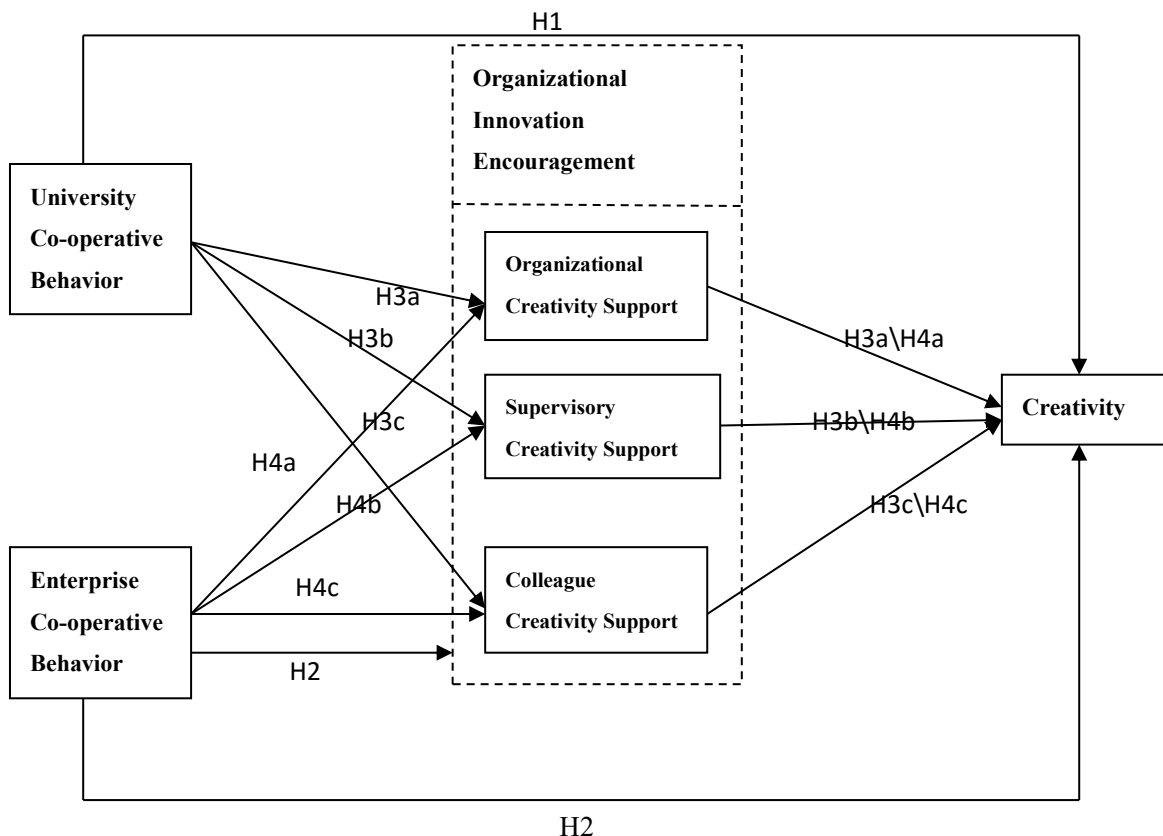


Figure 1. Empirical research model

## Method

### *Sample selection*

The authors selected four respectively Technology Universities in Guangxi, China, including Guangxi University of Science and Technology Lushan College, Baise University, Qinzhou University and Nanning College. Two or three researchers constituted a research group, each group collected 115 students who had participated cooperative education to fill in questionnaires. As a result, the total 4 universities and 460 questionnaires have been collected. There were 427 questionnaires valid data. The participation proportion of female is 59.72% are higher than male. Up to 37.94% are four year undergraduates and the fourth year students are 23.42%. The proportion of three year college students are 11.48% and also included 3.51% graduated students who have participated in cooperative education. In the discipline, literature

and history (economic management, education, management science and engineering etc.) is the highest proportion reach 85.71%, followed by engineering (electronic technology, printing technology, bio technology) reach 8.9%. In the form of participating in the cooperation, is to participate in the largest number of enterprises reach 36.53%, the graduation internship, internship programs for the second, up to 19.2%, while other forms account for 14.52%. In the time of participation in university enterprise cooperation, the number of people within one month is 47.54%, the main content is to participate in enterprises followed by projects, and participation in university enterprise cooperation for more than 1-3 months, the proportion are 19.67%.

## **Variable measurement**

### ***Independent variables***

Xu (2011) developed cooperative education scale, measured from the two latitude enterprise and enterprise cooperation behavior of university enterprise cooperation, training aspects of universities and enterprises is mainly reflected in: through cooperation to keep abreast of business need the type of personnel and job information, and through collaborative innovation production, learning and research, the view of the scientific research achievements into profitable projects. At the same time, the successful cases in the process of the theory study provide new production and management philosophy, to help enterprises solve practical problems in the process of operation. Finally, the universities can raise the employment rate of graduates who had been trained through cooperation education. The authors changed some scale items on the basis of semi-structured interviews, such as "The university teachers know knowledge; skill level is very high" to "The university to arrange a special teacher guidance when we practice". Make changes for "The university helps enterprises to solve business management problems" to "The university provided teaching cases and formulate the development strategy ". For the enterprise level scale improvement increase: "The enterprise is good at summing up practical experience in the production process or the case for teaching", "The university provides a new teaching idea". At last, remove some items to the organizational innovation encouragement.

### ***Mediating variables***

This study from three aspects: organizational creativity support (OCS), superior creativity support (SCS) and colleagues creativity support (CCS) to measure organizational creativity encouragement (OCE) (Qiu et al., 2009). The organizational innovation atmosphere scale of organization concept innovation support on behalf of the organization structure, leadership effectiveness represents superior support for innovation the construct and operation team on behalf of colleagues innovation support structure, and that the three dimensions of organizational support is divided to encourage innovation, in order to get the organization to encourage innovation in the final scale.

*Dependent variable*

This study focused on how to educate student's creativity. Analysis of change in cooperative education is an important issue for enterprises who are primarily interested in seeing if and when universities provide human resources' benefits to the firm. Therefore, the authors defined innovative creativity (IC) as dependent variable. According to Tiemey, Farmer and George (1999) research results, they used 9 items and 5 points project to measure employees' creativity. Zhou and George (1996) increased 4 entries, the total 13 items. Other researchers also verified its effectiveness in the Chinese context.

**Result***Analysis process*

This study proposed three competition models as showed as table 1. There is no intermediary model M1 for cooperative education directly to the students' creativity. M2 is a full mediation model and M3 is an intermediary model. We can see the fitting M3 model indexes are better than M1 and M2. Therefore, the hypothetical M3 model is the best fitting model, which covers organizational creativity support, superior creativity support and colleague creativity support on the mediating effect of students' creativity. We keep the model, and will further below in the interpretation of the model, and then test the hypothesis.

Table 1. Creative talent creativity structural equation model fitting index

Model	$\chi^2$	Df	$\chi^2/df$	GFI	RMSEA	CFI	NFI	NNFI	RFI
M1	923.997	374	2.472	0.868	0.059	0.945	0.910	0.940	0.903
M2	2047.203	892	2.295	0.816	0.055	0.929	0.882	0.925	0.874
M3	2041.382	890	2.294	0.817	0.055	0.929	0.882	0.925	0.874

( \*P<0.05 Two-sided Test    \*\*P<0.01 Two-sided Test    \*\*\*P<0.001 Two-sided Test )

*Reliability and Validity*

Fornell & Larcker (1981) pointed out the construct validity, convergent validity and discriminate validity of the theoretical model can be determined by combination of reliability and average variance extracted. The results are showed in Table 2. The combined reliability ranged from 0.91 - 0.96. The factors are higher than 0.7 standards. It shows that the six variables have the ideal validity. AVE value is 0.57 - 0.73, more than 0.5 standards. It is a good party validity. The further calculation are showed in Table 3 and the correlation coefficient is between 0.69--0.81. The data reflect a good discriminates validity.

Table 2. M3 optimal model combination reliability and AVE

Dimension	UCB	ECB	OCS	SCS	CCS	IC
Composite	0.93	0.93	0.91	0.92	0.93	0.96
Reliability						
AVE	0.61	0.57	0.66	0.69	0.73	0.68

Table 3 presents the relationship between university enterprise cooperation behavior, organizational innovation support and students' creativity. The whole questionnaire variables have strong correlation significantly.

Table 3. Coefficient PEARSON correlation between latitude of variable

	Mean Value	Standr- ad Erro	UCB	ECB	OCS	SCS	CCS	IC
<b>UCB</b>	3.52	1.09	1					
<b>ECB</b>	3.5	1.06	0.762**	1				
<b>OCS</b>	3.72	1.03	0.750**	0.796**	1			
<b>SCS</b>	3.76	0.98	0.712**	0.740**	0.810**	1		
<b>CCS</b>	3.81	0.97	0.692**	0.723**	0.788**	0.832**	1	
<b>IC</b>	3.70	0.99	0.731**	0.742**	0.798**	0.782**	0.770**	1

\*\* . The correlation was significant on the 0.01 level (double tail)

## Hypothesis Testing

In this study, the authors used AMOS24.0 as the following method to test the mediating effects of organizational innovation encouraging dimensions. In order to make clear the specific impact of university enterprise cooperation education on student's creativity, we construct the SEM model of the university enterprise cooperation education, and the creativity model.

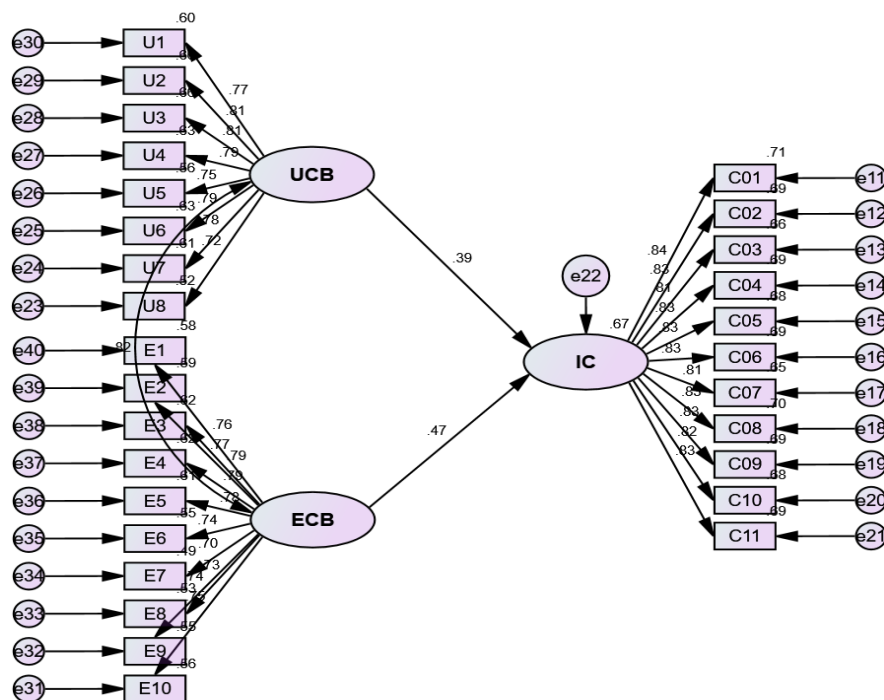


Figure 2. University enterprise cooperation behavior and the impact on student's creativity



As shown in figure 2 and the following table 4: RMSEA=0.059, to achieve the recommended value, CFI, NFI, NNFI and RFI are more than 0.9, the model is acceptable.

Table 4. University enterprise cooperation behavior impact on student's creativity

Variable Relationship			Normalized Coefficient	Path	T Value
UCB	<--->	ECB	0.821***		9.816
IC	<---	UCB	0.399***		5.786
IC	<---	ECB	0.489***		6.857

Model fitting index value: GFI=0.868, RMSEA=0.059, CFI=0.945, NFI=0.910, NNFI=0.940, RFI=0.903

Note: when the value of T is greater than 1.96, the  $p < .05$  is represented by \*; when greater than 2.58, the  $p < .01$  is indicated by \* \*;  $P < .001$  is greater than 3.29, expressed in \* \* \*

Influence of results from the cooperative education creativity of the main effect, the correlation coefficient of the university enterprise cooperation behavior and enterprise cooperation behavior is 0.821, the correlation coefficient of the university enterprise cooperation and student's creativity is 0.399, the correlation coefficient of enterprise cooperation behavior and innovative creativity in 0.489 the level of  $P < 0.001$ . That is significantly related to the university, the enterprises cooperation behaviors have a positive influence on the creativity. On the other hand, the university cooperation behaviors also have a positive influence on the creativity, assuming that H1 and H2 established.

The authors detect the mediating effect of organizational innovation and encourage each dimension, it can be seen from table 5: university enterprise cooperation behavior in joining the organization innovation support, supervisor support and colleague mediator innovation support three factors, standardized coefficient of only 0.144, the P value is  $0.024 < 0.05$  significant, therefore, between the three a cooperation in the enterprise behavior and creativity to play a mediating role, assuming H3a, H3b and H3c established. The enterprises cooperation behavior in joining the organization innovation support, supervisor support and colleague mediator innovation support three factors, standardized coefficient of only 0.005, the P value is 0.964, far greater than the significance level of 0.05, Therefore, the three factors play mediating role between the enterprise behavior, university behavior and creativity. H4a, H4b and H4c established. In the modified model, the authors deleted direct role from enterprise cooperation behavior to creativity.

Table 5. Assumes the path coefficients of the M3 model

Factor relation			Normalized path coefficient	T Value	Sig. Value
OCS	<---	UCB	0.259	4.474	***
SCS	<---	UCB	0.27	4.233	***
CCS	<---	UCB	0.252	3.848	***
OCS	<---	ECB	0.690	10.177	***
SCS	<---	ECB	0.628	8.938	***
CCS	<---	ECB	0.619	8.604	***
IC	<---	OCS	0.359	3.902	***
IC	<---	SCS	0.235	3.632	***
IC	<---	CCS	0.215	3.782	***
IC	<---	UCB	0.144	2.264	0.024
IC	<---	ECB	0.005	0.045	0.964

(\*P<0.05 Two-sided Test    \*\*P<0.01 Two-sided Test    \*\*\*P<0.001 Two-sided Test)

The figure 3 shows the revise models and table 6 shows revised model structural equation model fitting index.

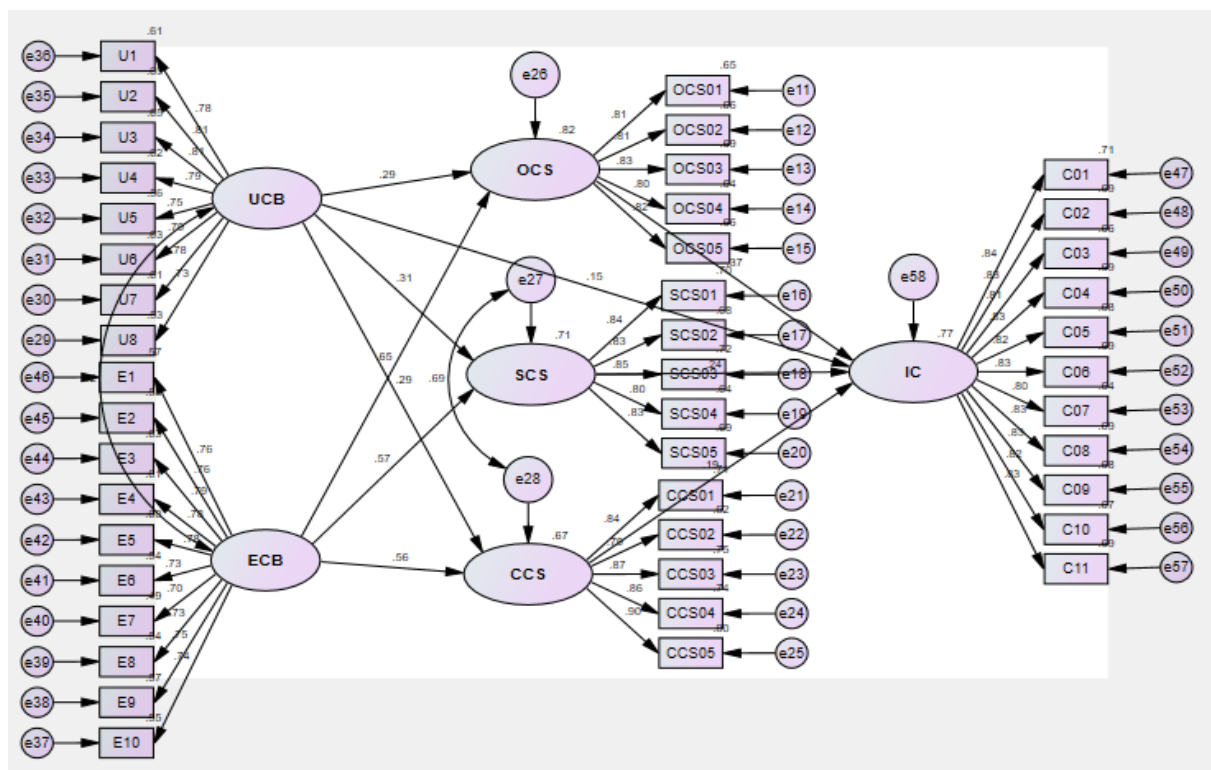


Figure 3. Correction, assume the path structure equation M3 the whole model

Table 6. Revised M3 model creative talents creativity structural equation model fitting index

$X^2$	$Df$	$X^2/df$	GFI	RMSEA	CFI	NFI	NNFI	RFI
1164.733	619	1.882	0.872	0.045	0.961	0.920	0.958	0.914

## Discussion

This study makes a contribution to the collaborative theory by focusing on cooperative education, to examine organizational innovation encouragements as a mediator. Based on the above results, universities and enterprises to participate in cooperative education on students' creativity and have a certain impact. However, when organizational innovation support, superior innovation support and colleague support to creativity as the intermediary effect, this effect from enterprises to creativity is not significant. When the dimension affects creativity through organizational innovation encouragement, the coefficients are high. The result proved the high effect of collaborative innovation between the university and the enterprise organization. The results also support the idea that organizational innovation encouragements play an important role for student education. We can find out studying environment are an important factor for universities' classes. Furthermore, we also can transfer the courses from universities' classroom to the enterprises' workplace in order to earn more real work scenes for students.

Our study addressed the gap by cooperative from two organizations. Organizational innovation encouragements are full mediating effect between enterprise co-operative behavior and innovative creativity. It can be considered the enterprises are the most important participating in the cooperation education. If enterprises can more actively participate in cooperative education, it can bring the more resources to the universities. For example, the staff of enterprises becomes a practice tutor to train students. The enterprise also can invest funds and equipments to establish the laboratory for universities. Therefore, each student could be conducted by academic tutor and practice tutor. They will have a stronger identity sense of career in psychology, and thus more conducive to creativity.

## Limitations and future research

Firstly, the primary data is collected through questionnaire survey, due to time, manpower and energy constraints, the questionnaire items are answered by the same person. There will be some homologous variance. Secondly, this research employed the method of cross section, the conclusion of the study has not been test by timing. This cooperative education measures are at the one time. According to the measurement results, there is a causal relationship between them. Despite the consistent conclusion most previous qualitative research contents and conclusions of this study, but the cross section design that we cannot let the other possible explanations are excluded. Finally, this study is used convenient sampling rather than completely random sampling method to collect the sample data.

This research has only scratched the surface of cooperative education. Further research should be carried out, collecting a bigger sample for the questionnaire and conducting face to face interviews in both universities and enterprises sides. For example, the author will collect data from the enterprise, university, students and participate in cooperative education, try to

collect a probability sample, in order to ensure a random sample and relating to be free of possible bias. Therefore, the author suggests that future research may consider design throughout the study in the conditions allow as far as possible by using random sampling method to collect standard sample information. Furthermore, snowball sampling of conducting interviews will be used for the further research as well.

## Conclusion

The research aims to analyze how Technology Universities in China design to train student's creativity. As mentioned that nowadays, there is enterprise participate in universities' education, therefore, for teaching transformation and innovative thinking such as, teaching method, critical thinking, innovative ideas, are more and more important for supply in the demand of high education. This paper focused on the topic of organization innovation encouragement. We found the relationships between university co-operative behavior, enterprise co-operative behavior and student's creativity in the Technology Universities of China. The results support university co-operative behavior, enterprise co-operative behavior have a significant influence on the student's creativity. Organization innovation encouragement plays the part of the intermediary role between university co-operative behavior and student's creativity. It plays a mediating role between enterprise co-operative behavior and student's creativity. Our model offers a mediator effect, explanation of education-level change. Importantly, the contributions from model of practice change are limited to collaborative theory, but extend practice as well.

In conclusion, enterprises could improve on practice education field for universities, and universities should make use of enterprises' resources in order to help students to earn more creativity. In China, more and more innovation demands for traditional industry, such as international trade, IT, marketing sales and financial etc. Technology Universities as a new type of universities in China, it might become a base to train students' creativity in order to solve the problem of innovative talents shortage. However, all the problems might be the same situation for any new or less experiences universities to develop cooperative education. Technology Universities need to increase its promotion, try to solve the enterprise problems and make its distinctive from traditional universities in order to create awareness of the brand image for vocational education.

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# The Impact of Tourism Policies Toward The Tourists Arrival in ASEAN: A Case Study Of Laos PDR

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## Abstract

This research article has been presented about tourism promoting policies of Laos PDR. Focus on the analyzing of the effectiveness of tourism promoting policies of Laos PDR, which will focus on details of contents guidelines on tourism promoting policies including the activities and methods. Together with results compared of the tourists' satisfactions in tourism products within Laos PDR. The public sectors that related to tourism promoting policies are the Ministry of Information, Culture and Tourism; and the Lao National Television. The finding of this article suggests that tourism promoting policies for Laos PDR was effectiveness so far. However, the methods of tourism promoting of Laos PDR has not invested heavily on tourism sector but still the tourists keep visiting Laos PDR.

**Keywords:** tourism policies, tourism management, Laos PDR

## Introduction

Tourism is a dynamic industry and has continuously growth throughout the world. According to UNTWO's forecast, the number of tourist will increase to 1.6 billion, with revenue of US\$ 2 trillion in 2020. (WTO, 2000). In 2007, there were more than 898 million tourists, an increase of 6% from the previous year of 846 million tourists, and a generation of income worth approximately US\$800 billion worldwide. Therefore, tourism has become one of the largest income earning industries to the target countries, along another material, chemical, oil and food industries.

In regional arenas, for instance in the ASEAN countries, tourism has grown significantly so far. In 2010, more than 73 million tourists traveled to ASEAN countries; increasing 11% from the previous year (Department of Tourism Development, 2016). In this region, inbounds tourist increased 47% (as of 2010) due to the great tourism cooperation among ASEAN member countries, which may involve in combined the diversity of cultural and natural tourism resources. In Laos PDR, tourism has strongly grown during the year 2011-2016 at 30%, representing more than 2.7 million tourists and it generated income more than 406 million USD, accounting for 8% of GDP. Therefore, tourism has become the second powerful earning industry after the mining sector in the country.



However, the contribution of tourism promoting policies needs to be proofed and analyzed in terms of the effectiveness when compared to Thailand's tourism promoting policies which is perceived to be success in terms of facilitating the enormous tourism industry of Thailand. For instance: Thai government's invested on tourism sector 7,136.7 million THB (about 216.3 million USD) in 2016 (National Statistical Office of Thailand, 2016) with the number of tourist arrivals was 66.5 million (Ministry of Tourism and Sports, 2016). And collected the revenue from tourism around THB 2.51 trillion (Vanhaleweyk, 2014). In addition, the Tourism Authority of Thailand (TAT) was expects to receive more than 164 million domestic and foreign tourists in 2014, generating a record-breaking at 2 trillion THB (about 65 billion USD) in revenue (GLOBAL TIMES, 2013) that above target.

Department of Tourism Development under the Ministry of Information, Culture and Tourism of Laos PDR has not injected some funding on the advertisement and promotion of tourists' activities and tourists' sites due to its lesser economic development (Tourism), even though the tourists keep visiting Laos PDR with a slightly increase of number each year. On other thoughts, the promotion of tourism in Thailand seems to be effectiveness and the government has pay attention to the promotion of tourism sector in Thailand by regularly increasing the investment on tourism sectors.

For instance: in the 2010, the Ministry of Tourism and Sports had put up 4,113 million THB on tourism sector; in the 2011, the money was increased up to 7,017 million THB; in the year 2013, the amount of money was 11,926 million THB and in 2014 the government push further investment on tourism sector with 13,807 million THB (National Statistical Office of Thailand, 2014). This showed that the Ministry of Tourism and Sports of Thailand has seen the important role of tourism sector which plays a significant part in country's economic development that is affected to other sectors' development such as transportation; the hotel and accommodation industry; the food and restaurants; and other service sectors which link to tourism service sectors.

Therefore, the purpose of this research was analyzed the effectiveness of tourism promoting policies of Laos PDR which will focus on details of contents guidelines on tourism promoting policies including the activities and methods of promotions which are used to compare with the results of tourists' satisfactions in tourism products of Laos PDR. The satisfactions of tourists are many elements including the nature; the culture; the people and another thing. Those elements are believed to be a contribution to the success of tourism industry of Laos PDR which also in line of the national tourism promoting policies.

## **Data Analysis**

The information for analyzing in this paper used secondary data from Laos Public Agency and Thailand Agency to creating an unconstructed interview guideline for focus group conducting methodology by using analogous confirmation method (Morse. 1993, pp. 300).

## **Program Advertisement and Promote Tourism**

Overall guidelines for advertisement and promotion of tourism for 2006-2020 aims at maintaining the increase of international tourists with average growth rate not less than 20% per annum. Together, support for internal tourism (Lao tourists) shall be encouraged. The targeted tourism markets in the future will still be from regional countries, which mean the tourists from neighboring countries and ASEAN member countries.

For long distance tourists from European countries are France, England, German, and USA, Canada; and from pacific countries are Japan, Korea, Australia, new Zeeland, Taiwan which needed to be attracted more and more to cover higher rate. Targeted Achievement is in the table below:

Table 1. Targeted achievement

Year	No. of tourists entered into Laos PDR	Revenue from tourism (USD)	Duration of stay of international tourists
2010	1,600,000	220,000,000	8 days
2015	2,200,000	320,000,000	10 days
2020	3,000,000	370,000,000	11 days

Whereas, tourism advertisement and promotion efforts shall have to achieve the following key areas:

- Addressing to the publication of printing materials and advertisement tools on tourism with efficient contents.
- Advertisement shall be in various forms; tourism exhibition / fair organized regionally and internationally by aim to main markets advertisement through domestic and international media; internet, information centers all around the country. Organize visit to tourism site (as known as farm trip) for tourism media and international travel companies; organize caravan to open up new tourism routes and sites; promote traditional festival, tourism fairs, tourism campaign; designate national tourism authority representative to base abroad and provide tourism information to interested persons abroad.
- Study and analyze tourism market to attract constant number of tourists. To achieve the key tasks specified above, it is necessary to emphasize to the following programs:

***Program 1: Produce printing and advertising materials***

This program is necessary as printing and advertising materials, those are the key factors and tools for advertisement to make both domestic and international tourists be informing about tourism sites and products available in the country.

***Program 2: Implement and extension of tourism information centers***

Provision of on-site information to tourism is necessary, as they known more sites as possible which will help to attract them to prolong their duration of stay.

***Program 3: Advertise Laos's tourism through media and tourism trade fair***

Advertisement of Laos's tourism through domestic and international media plus various activities in the form of advertisement in countries where tourism is well aware as it can operate at all times with unlimited scopes. Such advertisement aims at 2 targets: Domestic and international tourism.

***Program 4: Participation in international tourism exhibitions***

At present, international and regional tourism exhibition widely becomes the forum where all tourism related businesses have met and discussed on tourism business. This would bring more opportunities and more attentions.

***Program 5: Promotion of tourism activities***

Laos People of all ethnic groups have their own traditional festivals with become great potentials in tourism promoting. In instance Boun Khoun Khao: the harvest festival, Boun Pi Mai, the new year festival and many small festivals occur in villages and provinces around the country all year.

***Program 6: Cooperation with domestic and foreign business sectors in the advertisement and movement towards marketing, the task that both macro and micro levels shall have to closely cooperate to undertake in various forms such as:***

Establishment of Tourism Marketing and Promotion Board composed of representatives from both public and business sectors concerned in order to undertake the campaign and seek tourism marketing within and outside the country. Support tourism industry to strongly contribute to the Lao Tourism campaign, especially to participate in regional and international tourism exhibitions by commitment. Contract and cooperate with international aviation that fly to Laos, Foreign tourism campaign and tourism publication agencies, for instance, lonely planet, etc. in order to advertise Lao tourism abroad.

When Laos PDR first opened its door to international tourists in 1990, only 14,400 international arrivals were recorded. By 2005, the number had risen to nearly 1.1 million arrivals that generated over 146 million USD in foreign exchange. By 2011, the number of arrivals was 2.7 million, with revenue of 406 million USD. For the past 20 years, tourism has been the number one earner of foreign exchange, outpacing garment manufacturing, electricity exports and the mining sector (Tourism Development Department, Statistical Report in 2011). Over 70% of tourist arrivals to Laos PDR are regional tourists with the remaining 30% from the long-haul market that includes Europe, America and the Asia-Pacific region. Some priority markets for tourism industry are Thailand, America, France, The United Kingdom, Japan, Australia, Germany, Canada, Vietnam and China (LNTA, Statistical Report on Tourism in Laos 2016).

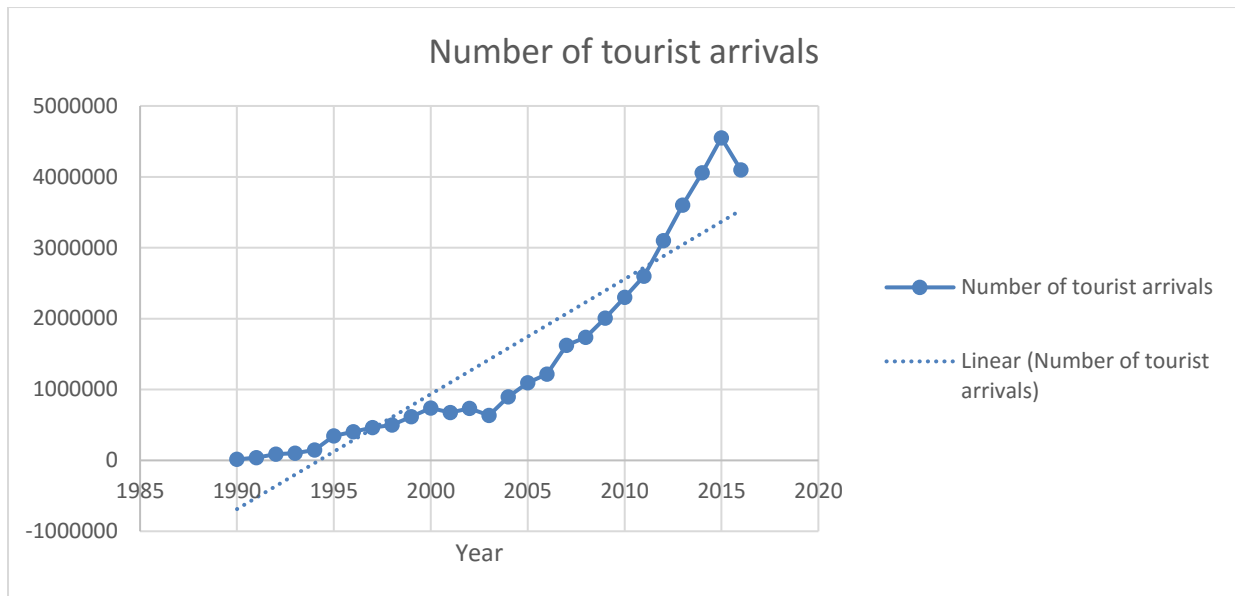


Figure 1: The Increase of Tourist Numbers in Laos PDR since 1990  
(Source: Lao National Tourism Statistical Report, 2016)

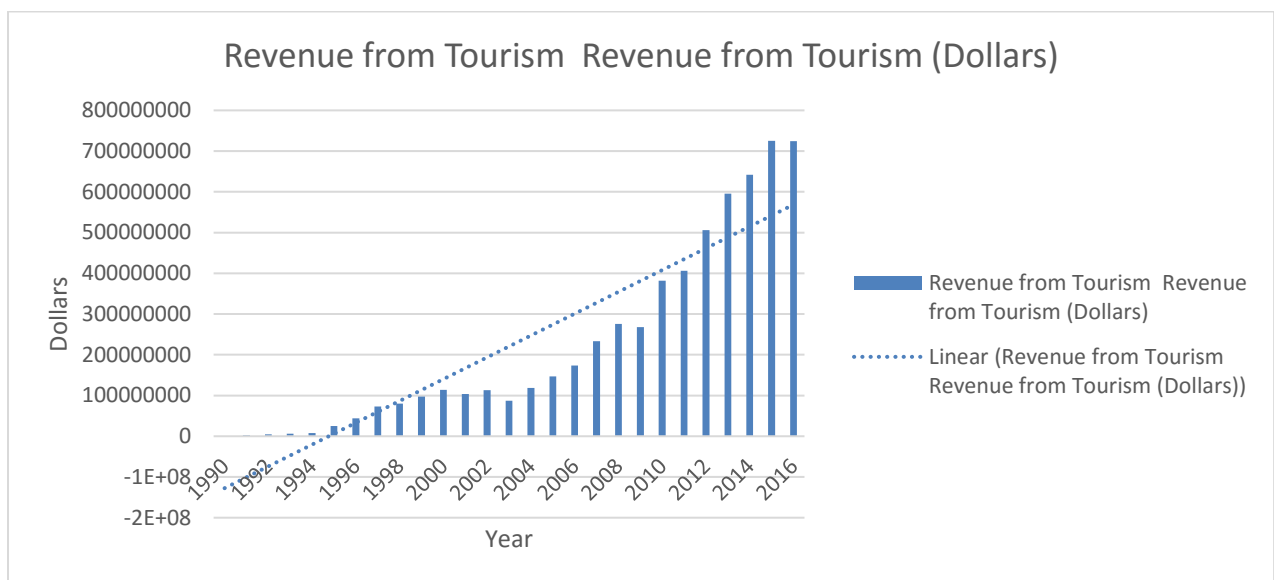


Figure 2: The Growth of Revenue from Tourism since 1990  
(Source: Lao National Tourism Statistical Report, 2016)

The Lao Government has made significant investments to promote growth and investment in the tourism sector. There have been large investments in the transportation (road) networking from north to south and east to west that now conveniently links the Laos PDR to neighboring countries. Three international airports are opening in Vientiane, Luang Prabang and Pakse. Furthermore, the national electricity grid, water supply and other public infrastructure have been upgraded and expanded. As well as, this communication tools allow easy and reliable communication with the outside world.

There are 17 international immigration checkpoints, of which 13 checkpoints issue visas on arrivals. In addition, the country supports visa-free agreements with 8 ASEAN countries; and exempts visa requirements for Japanese tourists for a period of two weeks.

Despite substantial progress as a developing country, Laos PDR still requires large investments in infrastructure and the government is actively encouraging foreign investment as outlined in the 2004 investment law. Foreign investment is encouraged in all products and service industries in any areas that do not have a negative impact on national security, the environment, and do not adversely affect peoples' health or their culture is willing welcome. Foreign investors and their property are entitled to full protection under the Law of Laos PDR.

Foreign investors are permitted to invest in Laos PDR in three ways: first, as a business cooperation by contract; second, as a joint venture between foreign and domestic investors where foreign equity should not be less than 30% of the total registered capital; or as a 100% foreign owned enterprise.

According to the 2005 Tourism Law, foreign investment is encouraged in the following sectors:

- Activities involving tourism promoting;
- Activities involving tourism communications;
- Activities involving tourism transportation;
- Investment in the accommodation sector;
- Investment in the food and beverage and entertainment sector;
- Handicrafts and souvenirs;
- Investment in tour companies.

Investment in the tourism sector has been liberalized to allow 100% ownership in hotels and restaurants. Furthermore, foreign investment in tour companies is set to 30% minimum and 70% maximum for foreign shareholders.

In 2009, Laos PDR had a total number of 1,493 tourist attractions, an increase of 985 designated tourist sites from 2005. Currently, there are 435 cultural sites, 849 are natural sites and 290 historical sites. Of these, more than 500 sites are still awaiting investors to develop facilities and services at the sites. There are 364 sites that are currently opened for business but many are in need of further investment and improvement. (LNTA, Statistical Report on Tourism in Laos PDR, 2009) that aims to increasing 5 percent per year.

At the same time, Laos PDR has been improving its management of tourism, its administrative systems and strengthening its private sector tourism-related businesses. For instance, the Lao National Tourism Administration has been elevated to Ministerial level and the Lao Association of Travel Agents and the Lao Hotel and Restaurant Association have been established. In 2009, there were 166 registered tour companies (in 2003, there were only 41 tour companies), 1,148 restaurants, 357 hotels and 1,344 guesthouses with a total of 26,558 rooms. The average room occupancy rate was 54% in 2009 compared to 45% in 2003. (LNTA, Statistical Report, 2009).

Tourism is the second largest economic contribution to Laos PDR after the mining sector. In 2009, the revenue from tourism was 267.7 million USD, while the mining sector was worth 539.4 million USD. In 2011, the revenue from tourism was 406 million USD, whereas the mining sector was worth 1,237 million USD (Tourism Development Department, 2011) in 2016, the revenue raising up to 724.2 million USD. Consequently, the industry currently employs over 30,000 people, including many village based guides and other village level service providers that have been trained by the various community-based ecotourism programs active in the country.

Laos PDR is a small country in mainland Southeast Asia, but tourism has the potential for development based on cultural diversity as well as, historical and natural assets. The existing forest covers 41% of the country's land mass, with 20 national protected areas harboring a wealth of biodiversity and globally important species. The Mekong River harbors beautiful scenery, archaeological sites and distinctive Lao arts and heritage. There are also many historic sites (the Plain of Jars, Vat Phou Champasak and Luang Prabang etc.) and 49 hospitable ethnic groups with diverse lifestyles, cultural practices and customs.

One instance of Laos PDR's heritage is Luang Prabang, is a living UNESCO world heritage site first settled in the 14th century. This town has become a "Tourism Mecca" in Southeast Asia, which is popular with both regional and long haul visitors. Another instance is Vat Phou Champasak and the Ancient City of Settapura that dates back to the 5th century; the Plain of Jars in Xieng Khouang with over 3,000 large stone urns spreading over 60 major sites, with each jar weighing from 2 to 3 tons and believed to be about 3,000 years old. This exceptional heritage has been an ongoing effort by UNESCO and the Lao government. In Houaphan Province, the Hin Tang Archaeological Park and the historic caves at Viengxay exist, one of fifteen National Heritage Sites. (LNTA: Tourism Guide Book, 2010). Some of the exceptional natural tourist attractions are Li Phi, and the Kone Papheng waterfalls, the largest waterfall in terms of its volume in Southeast Asia and the 7.5 km Konglor Cave underground river can accommodate small tourist boats.

There are 20 National Protected Areas, and some with established community-based ecotourism programs. One successful project is the Nam Ha Ecotourism Project, recognized as a "best practice" poverty alleviation project by UNDP that received both a UN Development Award and British Airways Tourism for Tomorrow Award. Other tourism destinations include the charming towns of Muang Ngoi in Luang Prabang, Muang Sing in Luang Namtha, Vang Vieng in Vientiane Province, Pak Beng in Oudomxay, Don Sao in Bokeo and Don Khone-Don Det in Champasak. In addition, Laos PDR has many traditional festivals held every month throughout the year as mentioned above.

Laos PDR clearly sees the importance and the benefit of tourism industrial, therefore the government continues to support and strengthen the role of the tourism sector through its enactment of a tourism law, marketing and promotion, and the public-private sector cooperation. Moreover, Laos PDR has cooperated with ASEAN and international organizations such as the UNWTO (United Nation World Tourism Organization) and the Netherlands Development Organization (SNV) to improve the Veing Xay historic caves, to draft the tourism law decree, and to work on some projects in southern Laos PDR. In addition, priority areas that required improvement such as; building human resources, developing infrastructure and upgrading services in the tourism sector and sustaining through the implementation of community-based ecotourism projects in Houaphan, Luang Namtha, Luang Prabang, Khammouane, Champasak and other provinces.

## Conclusion and Recommendation

The Lao Government policies have formulated significant investments to promote growth and investment in the tourism sector. There have been large investments in the transportation for improvement transferring from north to south and east to west that nowadays conveniently links the Laos PDR to neighboring countries that aims for tourism and investment sector and launching tourism advertisement and promotion efforts shall have to achieve the following key areas: the first area is addressing to the publication of printing materials and advertisement tools on tourism with efficient contents.



The second area is advertisement shall be in various forms; tourism exhibition / fair organized regionally and internationally by aim to main markets advertisement by using differences media; internet, broadcast television and information centers all around the country and the last area that should do, to study and analyze tourism market to attract constant number of tourists. To achieve the key tasks specified above

Laos PDR has been improving its management of tourism, its administrative systems and strengthening its private sector tourism-related businesses. For instance, the Lao National Tourism Administration has been elevated to Ministerial level and the Lao Association of Travel Agents and the Lao Hotel and Restaurant Association have been established. Tourism is the second largest economic contribution to Laos PDR after the mining sector. In 2009, the revenue from tourism was 267.7 million USD, while the mining sector was worth 539.4 million USD. In 2011, the revenue from tourism was 406 million USD, whereas the mining sector was worth 1.237 million USD and in 2016, the revenue raising up to 724.2 million USD that signed to launch promoting policy for rising arrival tourism and revenue from tourism.

Recommendation of this study examined the outcomes of the performance of tourism promoting policies of Laos PDR in comparison to the tourism performance on the topic: 'The Impact of Tourism Policies Toward The Tourists Arrival in ASEAN: A Case Study of Laos PDR'. The argument have been set up that Laos government has input some small amount of budget in the promotion of tourism sectors even though the tourist keep coming to visit Laos PDR. On the other hand, Thailand tourism has been invested with a big funding from the government, cost 7,136.7 million THB (about 216.3 million USD) in 2016 which in returns can attracted a large number of tourists that was about 66.5 million and earned a lot of revenue from tourism, in 2016 the revenue from tourism was 2.51 trillion THB. Based on the contents shown in figure 1 to figure 2, Laos PDR succeeds in term of tourism promoting policies. Even though Laos's tourism is considered as a small industry comparing to Thailand's tourism industry because of the investments on tourism sector are different. All of Laos PDR Public Sectors are need to consider that if Laos PDR should pay more attention to the promotion of tourism sector by getting lessons learned from Thailand as the country with a success on tourism industry which they have well implemented the tourism plans and guidelines for gain more revenue to the country from tourism industry or not.

**Percentage of research conduct** is 50/50 (Krish Rugchatjaroen and Simonekeo Senesathith)

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# Awareness, Access and Appreciation of/to Education in Working-Class Bangkok

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## Abstract

Education is the tool that allows citizens to achieve their personal and professional dreams. The purpose of the present qualitative study was to find out whether the access to education has increased from generation to generation in Bangkok or not, what the opinion of the citizens is in regards of the importance of education for a better future and the kind of education Thais dream of. Fifty citizens from several working-class neighbourhoods in Bangkok, Thailand, were interviewed. Their answers showed that younger generations have more access to all levels of education thanks to the help received and the available educational supply. Furthermore, they see that education can lead them to better standards of living and they wish to follow international curricula, giving ideas to current academic institutions about how to design their pedagogical and andragogic methods to meet those needs and dreams.

**Keywords:** Education, Human Rights, Education Management, International Education, Thailand

## Introduction

The concept of education has vastly varied throughout the centuries. Centuries ago, children were expected to help to provide for their families; thus, their education consisted of learning survival and hunting skills rather than literacy and the modern primary education. As stated by Gray (2008) “children in hunter-gatherer cultures learned what they needed to know to become effective adults through their own play and exploration. The strong drives in children to play and explore presumably came about, during our evolution as hunter-gatherers, to serve the needs of education”. Citizens, decades ago, had a more short-term perspective than today and they wanted to meet the present needs, such as being able to afford food to eat, shelter to live, clothes to wear and money to pay for any health complications.

Education was an investment that not many could afford on top of satisfying those basic needs. Like many things in life, people do not know what they have until they lose it. When individuals are used to having something every day, they do not value it that much. But when they do not, they dream of it. “The idea and practice of universal, compulsory public education developed gradually in Europe, from the early 16th century on into the 19th. It was an idea that had many supporters, who all had their own agendas concerning the lessons that children should learn” (Gray, 2008).

As Kofi Annan (n.d.) once stated, “Knowledge is power, information is liberating, education is the premise of progress, in every society, in every family” (BrainyQuote, n.d.). In 1948, when the Universal Declaration of Human Rights was signed, article 26 stated that access to primary education is a human right that should be enjoyed by every citizen (The United Nations, n.d.) Even though primary education is essential for the development of a person, it should not end there. As stated by Roser and Ortiz-Ospina (2017), “Education is widely accepted to be a fundamental resource, both for individuals and societies. Indeed, in most countries basic education is nowadays perceived not only as a right, but also as a duty – governments are typically expected to ensure access to basic education, while citizens are often required by law to attain education up to a certain basic level”.

Things have improved with time and it seems that access to both primary and higher education will keep increasing around the world as mentioned by Marmolejo (2010). Unfortunately, not many people have access or can afford higher education. Having the possibility of secondary education, or dreaming of a bachelor or a master degree, is something that many around the world cannot enjoy; “although the number of higher-education students will increase, unfortunately, it looks as though higher education will remain primarily elitist as it is today” (Marmolejo, 2010).

In most developed countries, if its young citizens were asked the following question, “*do you feel lucky for having access to higher education?*”, they, probably, would not have thought about it that much before since attending primary, secondary and tertiary education is something available and expected from them. According to data shown by the World Bank (2016), places like the European Union, North America and Central Asia are the ones with the highest gross enrollment ratios in tertiary education for both sexes.

These ratios decrease in many other parts of the world such as South East Asia and the Pacific and North Africa among others where many citizens not only do not have the opportunity to attend higher education, but in many occasions, not even secondary nor primary school (World Bank, 2016). Places like Thailand have shown a great improvement not only in regard to access to education, but also in reference to what people believe education can bring to their lives. The objective of this research study is to investigate the differences between previous and current generations in Bangkok in reference to their access to education, their opinion on what education means in their lives and the kind of education they would like to receive in their future.

The following conceptual framework shows a summary of the structure of the present study:

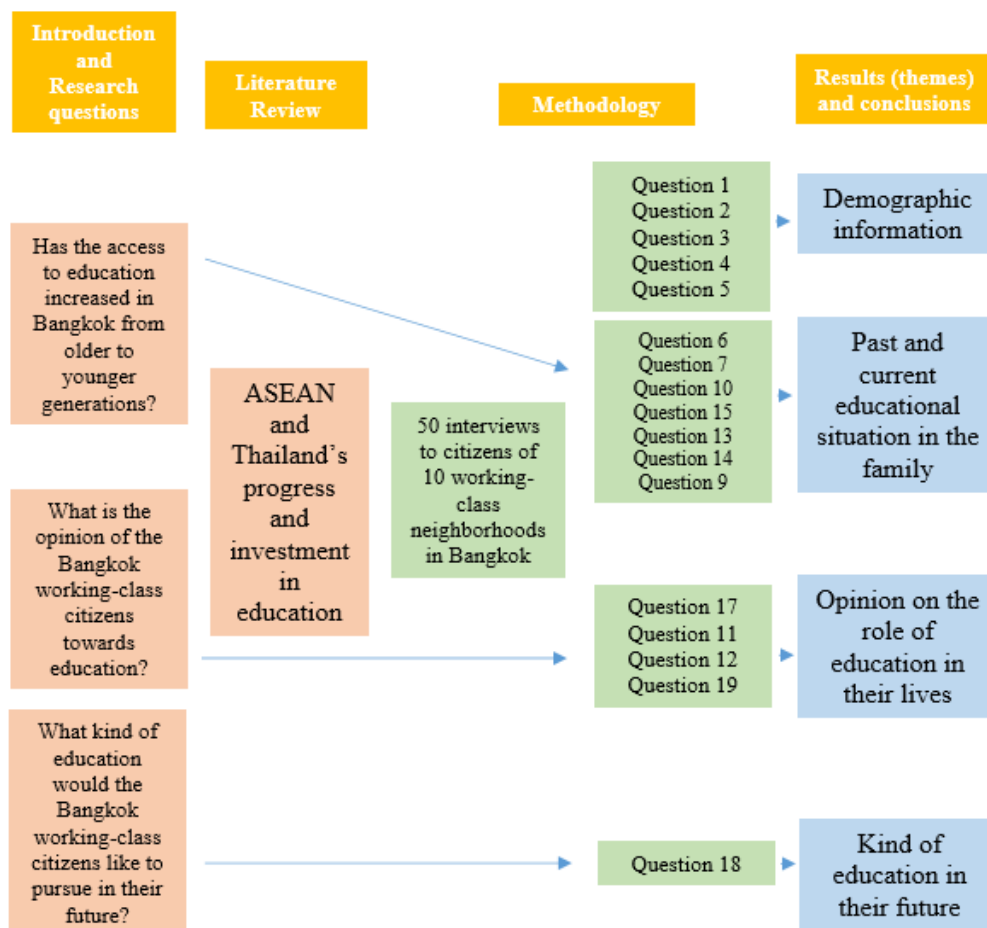


Figure 1. Conceptual framework

## Literature review

Thailand has a relatively favourable position among its compatriots in the Association of Southeast Asian Nations (ASEAN) trade pact. The World Economic Forum (WEF) Global Competitiveness Report has Thailand ranked third among ASEAN nations in overall competitiveness and 31st of the 144 nations measured. The country has a growing economy, low unemployment and “continues to do well in the financial development (34th) and improves its already strong showing in the market efficiency pillar” (Schwab & Sala-i-Martin, 2014, p. 44). While economically and financially sound, Thailand is deficient in one notable category when compared to other ASEAN nations and countries with similar economic profiles—education.

As Schwab & Sala-i-Martin of the WEF (2014) noted, “Another concern is the mediocre quality of education at all levels (87th, down nine) and the still low level of technological readiness” (p. 44). The state of the Thai education system has been a topic of local and international research. Limsawetkul (2007) put it well when he wrote, “It is widely acknowledged that the Thai educational system is not up to the standards of certain other countries at the same economic level and this has had a negative impact on development” (p. 9).

With what seem like ample resources and the necessary government support for reforms and expansion, the improvement process in the country's global education deserves special attention. Before delving further into reasons for the state of the Thai education system when compared to other sectors, it is important to establish a baseline understanding of what the current system is and how it operates. Prior to 1932, education for the average Thai was provided via monks at temples, and for royalty and nobility, it was arranged in palaces or privately (Kotkam, 2000). In 1932, the establishment of a formal primary education system became a national project (Kotkam, 2000). This is significant in that it suggests that the majority of the population has had a maximum of only four to five generations of exposure to the concept of formal education.

The development of a national education system (while still a somewhat below average one by current global standards) has seldom been neglected in modern Thai history or policy. In Thailand "basic education" has long been provided free of charge (Kotkam, 2000; UNESCO, 2009). The most recent reform, the 1999 National Education Act, expanded compulsory education from six to nine years and the available limit of free education to twelve years (UNESCO, 2009). The breakdown of available free education looks like this: "Basic education in Thailand is divided into 6 years of primary schooling, (Prathom 1 to 6) followed by 3 years of lower secondary (Mattayom 1 to 3) and 3 years of upper secondary schooling (Mattayom 4 to 6). In 2003, compulsory education was extended to 9 years, with all students expected to complete Mattayom 6" (Bureau of International Cooperation, 2008, p. 3).

The 1999 National Education Act and its implementation have been monitored and reviewed by both government bodies and a number of academic studies. The purpose of the 1999 Act was not only to improve access to and the duration of compulsory education, but to move the pedagogy from a by-rote to a student-centred approach (Hallinger & Lee, 2011, pp. 139-140). This marked a significant development in that the efforts at education reform focused not only on funding, but on curriculum redesign and renovation.

Thailand has the means to improve education and has attempted to make use of them. Tangkitvanich (2013), President of the Thailand Development Research Institute (TDRI), reported, "The government's budget for education has sharply increased from about USD 3.5 billion in 2003 to nearly USD 14.7 billion in 2012, and Thailand's public spending on education constituted 4 per cent of its GDP in 2011, while Singapore's equivalent is just 3.2 per cent of its GDP" (para. 1). It should also be noted that Thailand's nominal GDP is 387.2 billion USD while that of Singapore's is 177.1 billion USD—a 210.1 billion difference (Schwab & Sala-i-Martin, 2014). So the Thai investment is actually much larger at face value. However the WEF Global Competitiveness Report 2014-2015 also notes that the Thai population is 68.2 million, while Singapore is home to only 4.7 million (pp. 296, 360). So a direct comparison between the two nations may not be apt or prescriptive of actual dollar per student investment in terms of educational funding as a percentage of overall GDP.

Tangkitvanich (2013) goes on to note that Thai students receive the lowest scores in all of South East Asia on the Programme for International Assessment (PISA) tests and notes that while schools now receive more funding, and thereby teachers higher salaries, there is little accountability for student performance. His TDRI (2013) proposes more efficient assessment and funding of individual students as a means of opening access to education, as opposed to institutionally controlled funds. These recommendations may be promising. Certainly, in recent history, the monetary commitment to education has not been disregarded. The amount of funding allocated to education under the various Thai governments over the past two decades is far from meagre and has been representative of the increasing importance of education reform at both a societal and political level. As Buracom (2011) noted, "Education accounts for the largest share of government expenditures" (p. 113). He further elaborated:



[A]fter the financial crisis in 1997, basic education in Thailand has been expanded from nine to twelve years as required by the constitution. And of the entire education budget, 70 percent is spent directly on primary and secondary education. A student loan program for students of low-income families at upper secondary and tertiary levels has also been launched in 1997. And in 2009, the government has launched a fifteen-year free education program to reduce financial burdens of parents and to enable their children to have equal access to education (p. 115).

It seems the investment in improving the Thai education system cuts across political lines and is consistent throughout modern Thai policy. Buracom (2011) noted from 1982 to 2007 public spending on social services (with education at the forefront) steadily increased. That timeframe includes over ten prime ministers from vastly different political factions, who—as a majority—saw fit to consider education a matter of primary concern for Thai society (BBC, 2015). At the time of writing, acting Prime Minister Gen. Prayut Chan-o-cha has announced he will head an “education super-board” (The Nation, 2015).

Thus far, these attempts at education reform and increased funding have been based on sincere sentiments and egalitarian intentions buttressed by the financial support to affect serious change. The following study employs a qualitative approach, looking at a sample group of working-class Thai adults in Bangkok with school-aged children. It addresses these systematic deficiencies from a street-level perspective—rather than a political or administrative one—attempting to name the most common observations from average Thais about the educational system they participate in.

## Methodology

This study started in November 2014 and lasted until September 2015. During almost twelve months, the researchers visited several neighbourhoods around the city of Bangkok inhabited by middle and low social classes with the purpose of finding the desired target group: families with low incomes whose children go to primary, secondary and/or university in Bangkok. The sample of this research is 50 people (50 interviews were given although in more than 75% of the cases whole families were attentive to the responses of the chosen participant and intervened in some questions).

The research method chosen was mainly qualitative and there were several techniques used for it. The first one was a semi-structured interview. The appendix shows the letter of consent and questions that participants were asked. Out of 19 questions, the first four are considered structured ones since they had the purpose to finding out about the demographic background of the respondents. The rest of the questions allowed both the interviewer and the interviewee to have more freedom to interpret the meaning of the questions and get into more detail when answering. “The flexibility of this approach, semi-structured interviews, particularly compared to structured interviews, also allows for the discovery or elaboration of information that is important to participants but may not have previously been thought of as pertinent by the research team” (Gill et al., 2008).

Each interview lasted between 30 and 45 minutes. The researchers had a Thai research assistant who helped translate the questions and the answers when necessary. She was present in every single interview with the purpose of reaching a high probability of mutual understanding between interviewers and interviewees and of asking initial questions to citizens to make sure they fit the right target group. The participants were chosen based on their age (according to appearance) and whether they were surrounded by children or not.

As it was previously mentioned, the target group was working adults with kids or teenagers. Overall, the researchers did not encounter major obstacles when asking people for being interviewed. In fact, Thai citizens were very friendly and they seemed to like talking about education and their life. There were only a few cases where people said no, and even then, they were very polite. In those cases, they were busy having a snack in the park or relaxing so they did not want to be disturbed.

The second qualitative technique used by the researchers was ‘descriptive exploratory methodology’ to some extent. As it was stated by Schneider and Whitehead, (2016), “Descriptive exploratory methodology is not so much a specific approach, but more a ‘general’ approach that usually adopts common aspects of all qualitative approaches. In effect, descriptive exploratory researchers collect rich narrative data from small sample populations and analyse that data using broad ‘free-form’ thematic/content analysis methods”. This methodology, as showed in the previous conceptual framework, along with the semi-structure interviews allowed the interviewers to group the interview questions into different themes, analyzing past and present educational situations, as well as thinking of their possible academic future. “Exploratory research ‘tends to tackle new problems on which little or no previous research has been done’. Unstructured interviews is the most popular primary data collection method with this type of research” (Research Methodology, 2017).

This study’s methodology also applies some quantitative methods as shown in the following section where the results are presented. When the researchers analyzed the data, they looked for common patterns and themes, shared backgrounds, comparable experiences, similar opinions and alike dreams. This way the results could be presented in percentages for more definite analysis and conclusions. To comply with the qualitative research ethical guidelines, the participants were asked to carefully read and sign a letter of consent before starting the interview (see Appendix). There was no problem with any participant. Everyone was eager, not only to sign, but also, to take a picture/video with the researchers and/or the research assistant. The data collected were inserted in an Excel spreadsheet on the same day of the interviews so useful comments could accompany the answers given to fully comprehend the key qualitative aspects of the answers.

The areas that were chosen for the interviews were low and middle class neighborhoods and were selected after careful secondary research of those and continuous conversations with Thai citizens who knew them well and recommended them to the researchers as accurate locations to find the required target group for the interviews. The names of those areas are not disclosed in the present paper for sensitivity reasons.

## Results

The appendix shows the questions asked in the interviews. For a valid and accurate rate of response, the questions were not asked in order but mixed with the purpose of achieving the most transparent and sincere information. For a clearer understanding of the results, they will be shown in the order the researchers had in mind when developing the interview questions to be able to find common themes and to answer the initial three research questions. First, the current educational situation will be shown, then the interviewees’ opinions towards education and finally the interviewees’ desires when thinking about the relationship between education and their future. In summary, during the interviews, the participants had the chance (without noticing) to go on a journey that started with the educational situation of their previous generations compared to their current one and finishing by thinking of their future and dreams related to the field of education.

Starting with the most relevant questions in regard to the current educational situation of the interviewees, questions 6 and 7 gathered information in regards of the access to education among the minors in the family.

- 6 - How many of your kids go to school?
- 7 - Out of those who go to school, how many are in the right level?

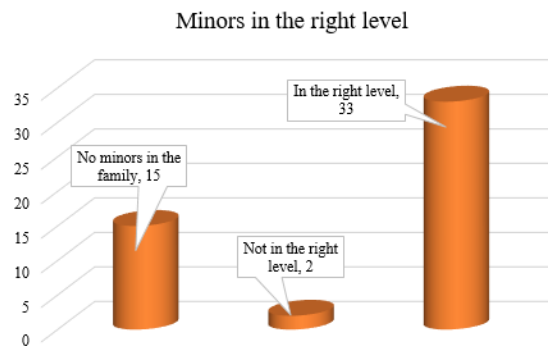


Figure 2. The number of minors in the family attending school and their level of education

When combining these two questions, the results show that the children of the majority of respondents were attending school and in the right level. Only 4% (2/50) of the respondents informed that they were not in the right level, one of them was 20 years old and was still in high school and the other one did not provide with the exact reasons. Of the respondents 66% (33/50) claimed to be in the right level, from kindergarten to university level, where 81% (27/33) were attending public education. Out of the 50 respondents, 15 said that there were no minors in the family at the moment so they could not add any information to this question.

While asking these two questions, the researchers perceived that even though the interviewees felt comfortable answering how many children in the family attended school, some of them either refused or felt a bit uncomfortable when asking about whether they were in the right level or not. There were some instances where the researchers had to explain how the primary and the secondary system works in Thailand since some of the interviewees seemed a bit confused on how to answer this question. This led the authors to believe that some families might not fully know at what age each school level should be taken. Of the few respondents that admitted that some children were not attending the right level, they did not wish to elaborate on the reasons why this happened; thus, the researchers decided not to continue asking very personal questions.

To find out more about the current situation in the family and understand the differences between the old and new generations when it comes to the access to education, question number 10 was addressed to the parents of the family

- 10 - Parents: what is the highest level of education that you completed?

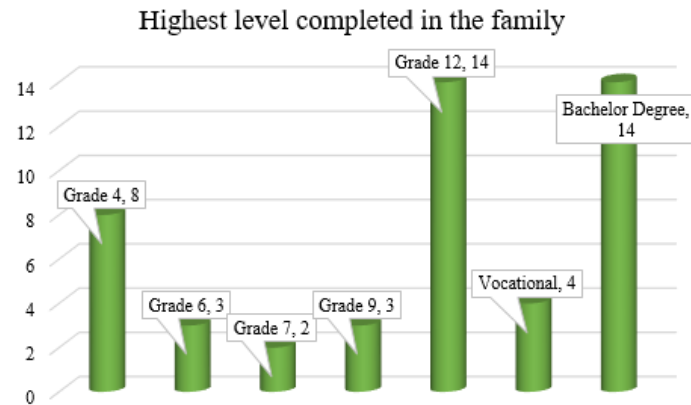


Figure 3: The highest level of education completed among the family members

The results showed that the majority of them, 62.5% (30/48 respondents) had attended high-school but only fewer than half of them had completed it. In the interviews the respondents confirmed that their access to education was more limited than what is now since work began earlier for all the family members. The respondents that claimed to have access to vocational courses and university level education were usually of younger ages (parents between 30-40), showing that the newer generations not only have more access to higher education but also more willingness to pursue higher studies. The interviewers perceived a different feeling when asking this question to younger generations than when asking it to older ones. The ages of the participants varied between twenty and sixty years old. Older generations, even though most of them admitted their level of education being either primary or lower than primary school for the majority, somehow showed, through their answers and their non-verbal communication, that they wished they had studied longer. Several of these senior participants discussed the situations of the younger generations in their families and how proud they felt that their children and their grandchildren were able to attend university. To continue investigating the difference between generations, question number 15 focuses on the access to higher studies (university level):

15 - Does any member of your family go to university? If so, which one?

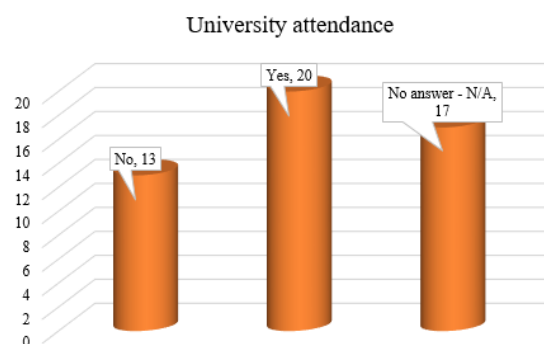


Figure 4. The number of family members that have either attended or are attending university

Only 40% (20/50) claimed to have at least one person in the family that had either attended university or was attending at the moment of the interview. These positive results correspond, for the most part, to the younger respondents and newer generations, in concordance with the results found in the previous question number 12. When this question

was answered by the younger generations, being them the ones that had had or were, at that time, having the opportunity of attending tertiary education, the interviewers sensed a feeling of pride and happiness on their faces. More specifically and as an example, one young woman and two young men who were attending university, they mentioned that they had worked hard to be able to attend it, both academically and financially, and they saw it as a great achievement and as a very good investment.

Once the information was gathered in regard to the kind and level of education existent among the respondents, it was important to understand other factors that affected the attendance rate and the choice of school. Questions 13 and 14 were related to how affordable education was for the interviews and the kind of help they received to make sure that at least the minors of the family could have access to education.

13 - Is education free for your family?

14 - Do you receive any kind of assistance from the government related to education (school fees, books, other material, etc.)?

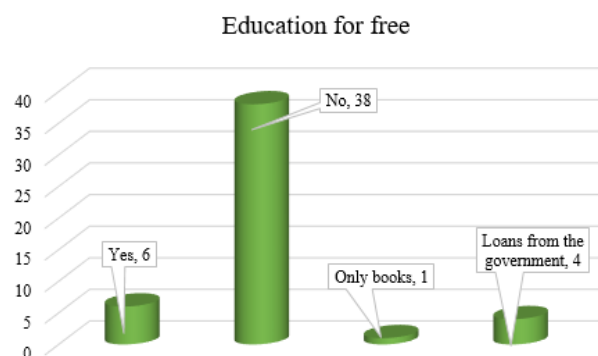


Figure 5. The number of people who have or have not received some kind of help for education.

While only 12% (6/49) of respondents stated that the education their kids receive is completely free (kindergarten and primary school in all cases), there were a few others that confirmed that even though it is not completely free, they received some kind of help such as free text books, uniforms, and/or loans from the government. Of the respondents 32% (16/50) claimed that somebody in their family had received a full loan from the government for the compulsory years of education (mainly primary school).

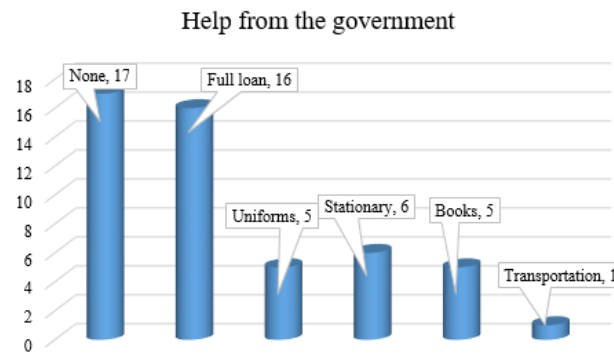


Figure 6. The kind of help that the participants have received from the government for academic purposes.

These two questions in regards of financial information and help received were the most difficult ones to ask when conducting the interviews due to sensitivity reasons. Thanks to the research assistant, the questions were asked in an indirect way finding new words to reach the information required. For example, instead of asking what kind of help they received and leave it as an open-ended question, the assistant saw that by asking more specific questions in regards of the materials such as uniforms, stationary or books, the citizens were more willing to answer and felt more comfortable. When it came to receiving full loan, on the contrary, there was a difference in some of the participants. Some of them felt like it was something to be proud of since the loan had been given as a scholarship; while a few others did not feel that comfortable by talking about it. For those participants stating that they did not receive any kind of help, the interviewers asked them about what they would choose if they could receive something and they said that either transportation or tuition fees would be their preference.

Since Bangkok is fairly extensive in area, transportation is key when it comes to what school to attend since it influences the variable monthly costs of a family. Question 9 was aimed to find out about that aspect of the experience of education:

9 - What kind of transportation do you use if any when they go to school?

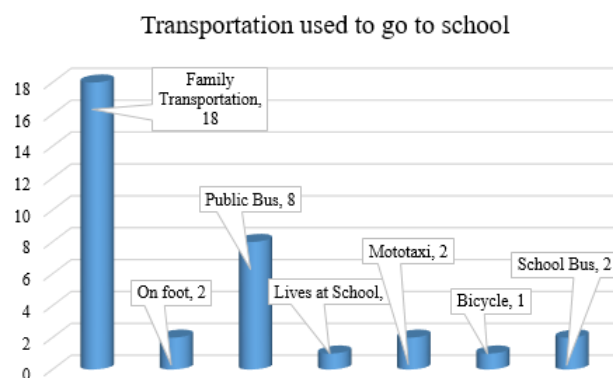


Figure 7. The kind of transportation used by the participants to go to school.

The results showed that the majority of respondents used their own transportation; thus they had to spend money on petrol, or had to pay for either a public bus or a motorcycle taxi. Those represented 82% of the interviews (28/34).



This supports the previously stated answers when the participants mentioned that if they could choose what help to receive one of their priorities would be transportation. From specific experiences to a more general perspective of the educational awareness within some neighbourhoods in Bangkok, question 17 asked the following to the participants:

17 - Do you feel education is promoted in your neighborhood?

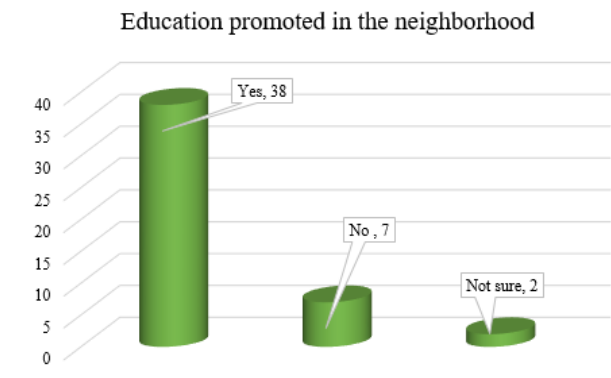


Figure 8. The opinions of the participants on whether education was promoted in their neighborhoods or not.

The results showed that nowadays education is becoming more and more important and citizens from the working class in Bangkok encourage their family members to attend school for as long as they can. Of the respondents from neighbourhoods such as Kwai Kwang, Rachada, Klon Toey, Pathunthani, Khet Lak, Mochit, Makassan, Lad Prao, Rama III, Rama IV, Bangkapi, Onnut, Nonthaburi 80% (38/47) responded with a decisive “yes”, education was promoted around the area where they lived. The pattern found on the aforementioned results was that most people who mentioned that they did not feel that education was promoted around their neighborhood were senior citizens somewhere around their fifty and sixty years old. The researchers attributed this feeling to the possibility that these citizens were not that much exposed to education anymore. The younger interviewees, on the contrary, strongly felt that education was promoted among their neighbors. There were some adult participants that clarified that they had seen a change among their counterparts and around the areas where they lived in reference to a positive attitude toward education; they felt that it was not promoted or not given that much importance some decades ago whereas nowadays topics related to education were very common in daily conversations.

Once the current and previous educational situation of the respondents have been shown, the following questions dig into the topics of what their opinions are towards education and what they think it is useful for their daily and future lives. Questions 11 and 12 asked them about these topics:

11 - Do you think education is important for the future of your family? Why?

12 - Do you believe that if a person studies he/she will have a better future?

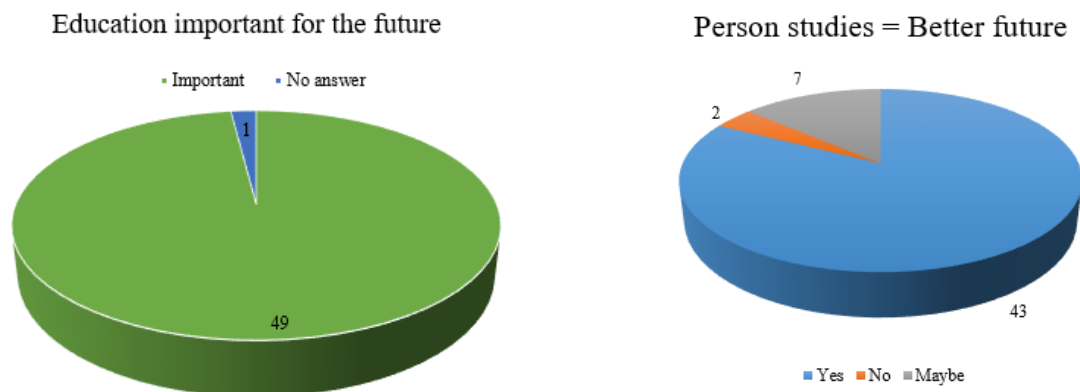


Figure 9. The number of participants who thought that education is important for their future.

Figure 10. The number of participants who thought that the more a person studies the more chances they have to have a better future.

All the participants that were asked whether education is important for their family answered “yes”. Most respondents (24/49) mentioned that education would allow them to develop more skills, thus get better jobs and better opportunities in the future. Others (18/49) related their ideas to self-development, since they saw education as the tool that would allow them to understand the world, to build relationships with other people and to progress as human beings. These two questions were closely related and received some of the longest answers by the participants. It seemed like the interview made them think about the advantages that education had brought to their lives. Some of the exact answers given by some of the participants are the following ones:

Participant 9: “Yes because without education we cannot follow or understand what is going on around the world”

Participant 13: “Yes, education helps us and teaches us how to think critically and make wise decisions.”

Participant 17: “It is important because education brings opportunities to our lives.”

Participant 18: “It is important because the kids will be ready for the AEC.”

Participant 25: “Yes, nowadays technology and society change very quickly and that is why education is important.”

Participant 32: “Yes, because kids have to learn what they write, read and communicate. All of these are basic skills that are needed in the future.”

Participant 49: “Of course, it helps to develop quality of life of family in all areas (poor habits and hygiene in her family - eating with hands).”

Closely related to question 11, question 12 was more specific in regard to how much education could give them a better future. Of the respondents, 86% (43/50) were convinced that the more a person studies, the better future he/she would have. They elaborated this idea by saying that more studies would increase their chance of getting a better job and earning more money, so their living standards for their families could improve in the future.

Only five respondents hesitated, arguing that it would depend on the person's attitude and personality to make things work and not only on the education received. To continue investigating their views on education, the last question of the interview was related to the human right number set out in article 26.

“1. Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory. Technical and professional education shall be made generally available and higher education shall be equally accessible to all on the basis of merit. 2. Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms. It shall promote understanding, tolerance and friendship among all nations, racial or religious groups, and shall further the activities of the United Nations for the maintenance of peace. 3. Parents have a prior right to choose the kind of education that shall be given to their children” (The United Nations, n.d.)

Respondents were asked to give their perspective on this human right.

#### 19 - Do you agree that education is a human right? Why?

Forty-eight respondents answered with a decisive “yes” and the reasons given were, for the majority, the fact that education improves their quality of life and makes everybody equal since it gives opportunities to everyone. In several cases the interviewers observed that some of the participants did not know that education is a human right, especially when asking older generations since they had either experienced or knew of somebody in the past that had not enjoyed the access to it. Once that was explained, most participants agreed that education is a human right. Only one person that had to leave before the end of the interview did not have the chance to answer this question and there was another one who said ‘no’, participant 17: *“No. Education is important but without education we can still find the way to survive”*. Out of the interviewees that agreed, a response deserves to be transcribed as a reflection of the real meaning behind having human rights; it was given by Participant 50 who said: *“Agree. If we all have the same level of education we will be able to make decisions and think. This will more likely decrease unfairness.”*

In the last part of the interview, after understanding the educational situation of the participants and their views on the role of education in their lives, the researchers gave the participants a chance to dream about the possibility of having access to any education they could imagine, and say what they would opt for and why.

#### 18 - If you could afford any kind of education, what would it be (international education in Bangkok, university, study abroad)? Why?

The respondents could give several answers to this question. More than half of the respondents (28) dreamed about having access to an international education, in Bangkok and abroad, because they see it as the way to achieve a better future in terms of job opportunities and networking, thanks to the English language. The interviewees placed more importance on the kind of education (private and international as their favourites), rather than the level of it since only four respondents mentioned higher education such as bachelor and master degrees.

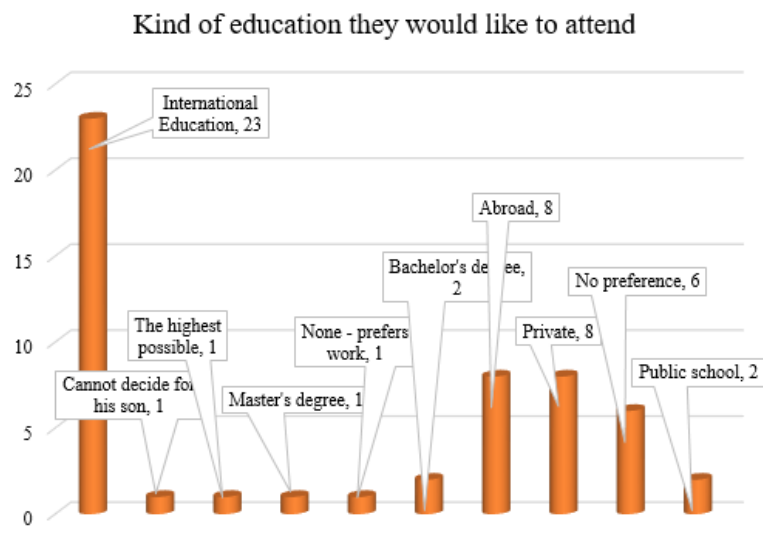


Figure 11. The academic preferences of the participants when choosing the kind of education they would like to receive in the future.

This question was the one which, based on what the researchers could observe, the interviewees enjoyed discussing the most. Somehow the idea of dreaming of their future and of having some minutes to discuss their wishes with people that they did not know brought them joy and hope. The interviewers were foreigners living in Thailand and both of them were lecturers in an international university. When the participants asked them a bit about their background, about the country where they came from, about their jobs in Bangkok, etc., the participants seemed to become very interested in practicing their English language skills as well as talking about travelling to other countries, learning about other cultures and having access to diverse teaching and learning styles. Some of their responses were the following ones:

Participant 23: *“International school because he will have the chance to establish relationships with foreigners.”*

Participant 27: *“Any that is associated with learning and developing foreign languages. If we can speak more than language, it will help us gain more opportunities in the future.”*

Participant 39: *“Private school because they have a better system regarding teacher’s evaluations than public schools.”*

Participant 45: *“International school because it will help us improve our social status.”*

Participant 46: *“Private school because there are many smart and talented people in private schools. Being around them will inspire me to improve myself as well.”*

## Analysis

As discussed in the literature review, Kotkam (2000), stated that not over four to five generations have been exposed to formal education in Thailand. The results of this present study proved this statement right by showing that the access and attendance to primary, secondary and higher education has increased from older generation to younger ones in Bangkok. The average highest level achieved by the older family members of the participants was around 4<sup>th</sup> grade, which in some cases meant that the primary education had not been accomplished. On the contrary, the participants that were young adults, teenagers and minors had achieved primary, secondary and in some occasions higher educational levels.

This improvement might be influenced, as understood from the data collected, by two main factors: the help received and the positive attitudes toward education in general.

Firstly, one factor seems to be the help Thai families receive from the government to be able to afford education in regard to transportation, materials and from a rise in the number of educational institutions available. As discussed by Tangkitvanich (2013) and Buracom (2011), in recent years, the Thai government has been investing more on education and on helping its citizens to be able to access it. The results showed that transportation is one of the biggest burdens for the working-class citizens. A way to assist them in this aspect might be by giving scholarships to attend schools that are not completely free but are the only ones accessible due to distance from the households as well as to continue granting student loan programs as the government has been doing in the last years.

The second factor is related to the positive attitude that Thai society has toward education nowadays. It was in 1999 when the National Education Act was passed as stated by UNESCO (2009), by which mandatory education increased in number of years as well as the shift in pedagogical approaches towards an education more focused on students' needs. By analyzing the responses giving by the participants taking their age range into account, it was shown that the younger generations were actually the ones that had been positively affected by this act in the last eighteen years. When education is promoted, encouraged and a priority among the top spheres of society, it is then when the domino effect starts and it reaches all societal classes. This has affected societal expectations for the younger generation and has encouraged the ambition of getting a good education among Thai youth. Thai respondents, as representatives of their peers, view education as the bridge to a better future; not only in regard to being literate but also in terms of the chance to develop themselves as human beings. Furthermore, they see education as the tool needed to understand what is happening in a globalized world where people need to live together. Many linguistic codes along with diverse moral values, religions, social expectations, ethical standards, etc. are mixed in the multicultural city of Bangkok, where education plays an essential role that allows Thai citizens and foreigners to cohabit successfully.

Furthermore, Thai participants chose private and international schooling when they were asked to imagine the education they would like to have. They believed that the ability to speak English and to have access to an international education, meaning international curricula and international lecturers, would allow them to be successful in their personal and business relationships in the present and in the future. In relation to this result, they also viewed higher education as a "must" nowadays rather than as an option. As is suggested in the results, new generations do not stop studying when finishing primary or high school but feel the need to pursue a bachelor degree in order to have better living standards than previous generations. The aforementioned ideas provide new insights for primary, secondary and tertiary institutions on how to prepare their students not only for the future they want but also to be ready to compete globally and to compare the quality of education among the Thai schools to those around the ASEAN community such as Singapore and Malaysia as suggested by Tangkitvanich (2013).

By (re)designing their academic curricula it would be possible to create partnerships between institutions in different cities to allow students to study for one or two terms in another country, as some of the participants stated when asked about their academic future.

### **Limitations of study**

It could be said that language barrier was the main limitation of the study. Both researchers speak moderate level of Thai and this was the reason why they relied on the research assistant at all times; without her help it would not have been possible to carry out most of the interviews. In order to gain a fuller understanding of the questions and the answers

of the interviews, the researchers were present for all of them, asking the assistant for clarification in situ and reviewing all the answers afterwards with the assistant to make sure enough notes were taken to understand what the interviewees said.

Another limitation is related to the veracity of the answers given by the participants. The interviewees did not know the researchers who were asking questions about their private life. The truth in the answer was, as much as possible, validated by the authors through constant note-taking on non-verbal communication analysis. The researchers needed to believe in the good faith of the interviewees and investigate the non-verbal communication as well as the specificity of the answers given by the participants.

### **Recommendations for further research**

When using qualitative research methods, the scope for further research is very wide, and that is the case for this present study. How much access do working-class people in Bangkok have to primary and secondary education, how much has that access evolved over the last few years compared to the previous generation, whether education is promoted among several neighbourhoods in Bangkok or not, and what kind of education is the most desired among the Bangkok middle and low class population were some of the points investigated in this study. The first suggestion for further research is to continue using the same technique with a greater number of interviewees and in more areas of the city, different from the ones in this paper.

The second recommendation has to do with the quality of the education primary and secondary school students receive in Bangkok and how schools are preparing students for a potential international education and studies abroad later on. First, public schools could be assessed since the majority of the participants attended them, and then it could be compared to private and/or international schools. Bangkok has been the city selected for this study as the two researchers live there and know the city and its neighbourhoods fairly well. Another possibility would be to conduct the same or a similar research in a rural area of Thailand to investigate not only access to education but also its quality and value for Thai citizens.

The last suggestion is related to the level of education. Primary and secondary education were the main targets of this study. Thai universities are improving their quality standards little by little with the purpose of competing with neighbouring countries such as Singapore, Vietnam, Malaysia, China, South Korea and Japan. Studying the quality of education in Thai universities for several years might give a clear understanding of the progress in this context, the improvement over time and the success of the vision of the Thai Ministry of Education within the ASEAN community.

### **Conclusion**

The three research questions of the present study are: Has the access to education increased in Bangkok from older to younger generations? What is the opinion of the Bangkok working-class citizens toward education? and, What kind of education would the Bangkok working-class citizens like to pursue in their future? In response to the first and the second questions, the study showed a higher level of access and attendance to the primary, secondary and higher education compared to previous generations that for the most part just had access to primary education. More people seemed to study after high school or had the desire to do so when they finish it. This rise was understood to be made possible by the increase in help provided by the government related to education and by a more positive attitude toward what education could bring to their future.



It seemed as if previous generations were more focused on entering the professional world as soon as they finished primary education, whereas the newer generations see that without a higher level of education, their living standards could not improve. To answer the third question, the participants dreamed of having access to an international environment and better job opportunities. Taking into account that the interviews took place in the multicultural city of Bangkok where many foreigners live, no matter where the participants lived, they saw a very high probability of interacting with people from other countries and of doing business with them, locally and internationally. Their choice of education was, for the majority, an international education in English, and the possibility of learning about the world so they could develop themselves and have better personal and professional opportunities in the future by being able to compare the quality of education received to those of neighbor countries.

In summary, the encouraging results, both in terms of access to education and awareness and appreciation of it, are useful for current educational institutions and educators to (re)design their pedagogical and andragogic education, keeping in mind the personal and professional objectives of the Thai population and preparing them for the international future they would like to have access to.

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## Appendix - Letter of consent plus interview questions



มหาวิทยาลัยนานาชาติแสตมฟอร์ด วิทยาเขตกรุงเทพฯ

ทางหลวงพิเศษหมายเลข 6 กิโลเมตรที่ 2

เขตประเวศ กรุงเทพมหานคร

10250

### หนังสือยินยอม (Letter of Consent)

จดหมายฉบับนี้ได้เขียนขึ้นเพื่อรับรองว่า นายเจacob มาร์ติน และ ดร.ไดอาน่า มาร์ติเนซ คณะอาจารย์จากมหาวิทยาลัยนานาชาติแสตมฟอร์ด วิทยาเขตเขตกรุงเทพมหานคร ได้กำลังดำเนินการทำงานวิจัยเชิงคุณภาพอยู่จริง ซึ่งหนึ่งในกระบวนการของการทำงานวิจัยนี้คือการสัมภาษณ์กลุ่มประชากรในหลากหลายพื้นที่ในกรุงเทพมหานคร (This letter certifies that Ajarn Jacob Daniel Martin and Ajarn Diana Martinez are conducting a qualitative research paper that involves interviews to people in several areas of Bangkok.)

โดยการเซ็นชื่อในจดหมายฉบับนี้ เป็นการแสดงว่าคุณ (By signing this letter, you) ได้ยินยอมและอนุญาตให้นักวิจัยจากทางมหาวิทยาลัยนานาชาติแสตมฟอร์ดได้ทำการสอบถามความคิดเห็นทั่วไปเกี่ยวกับการจัดการศึกษาในกรุงเทพมหานคร และความคิดเห็นเกี่ยวกับเรื่องความสุข ข้อมูลที่ได้ทั้งหมดจากการสัมภาษณ์จะถูกนำไปใช้เป็นส่วนหนึ่งในกระบวนการเก็บรวบรวมข้อมูลของงานวิจัยในครั้งนี้ (certify that you allowed the researchers to ask you several questions in regard of education and happiness, and those answers will be part of the data collection of the consequent research.)

ขอขอบพระคุณเป็นอย่างสูงในการให้ความร่วมมือในครั้งนี้ (Thank you in advance for your time and help.)

ลายเซ็นของผู้ยินยอมเข้าร่วมสัมภาษณ์ (Interviewee's signature)

\_\_\_\_\_

ชื่อของผู้ยินยอมเข้าร่วมสัมภาษณ์ (Interviewee's name)

\_\_\_\_\_

วันที่ (Date)

## Education in Bangkok - การจัดการศึกษาในกรุงเทพมหานคร

1. Gender เพศ :
2. Age อายุ:
3. Area where you live in Bangkok ที่อยู่ปัจจุบันในกรุงเทพ ฯ:
4. Occupation อาชีพ:
5. Members in your family จำนวนสมาชิกในครอบครัว:
6. How many of your kids go to school? จำนวนบุตรในครอบครัวที่กำลังศึกษาอยู่:
7. Out of those who go to school, how many are in the right level? ในจำนวนบุตรทั้งหมดที่กำลังศึกษาอยู่ มีบุตรจำนวนกี่คนที่ได้รับการศึกษาในระดับที่ตรงตามอายุ ตัวอย่างเช่น  
อายุ 7 ขวบ = ประถมศึกษาชั้นปีที่ 1 :
8. What kind of school do your children go to? (International, private or public)บุตรของท่านเข้ารับการศึกษากับสถาบันการศึกษาประเภทใด ตัวอย่างเช่น โรงเรียนนานาชาติ หรือ โรงเรียนเอกชน :
9. What kind of transportation do they use if any when they go to school? บุตรที่กำลังศึกษาอยู่เดินทางมาที่โรงเรียนโดยวิธีใด ตัวอย่างเช่น รถโดยสาร รถจักรยานยนต์ ทางเรือ หรือเดินเท้า :
10. Parents: what is the highest level of education that you completed? สำหรับผู้ปกครอง : ท่านจบการศึกษาระดับใด
11. Do you think education is important for the future of your family? Why? คุณคิดว่าการศึกษามีความสำคัญต่อความเป็นอยู่ของคนในครอบครัวในอนาคตหรือไม่ เพราะเหตุใด
12. Do you believe that if a person studies he/she will have a better future? คุณคิดว่าการศึกษาทำให้มีคุณภาพชีวิตที่ดีขึ้น ใช่หรือไม่
13. Is education for your family free? คุณได้รับการศึกษาโดยไม่ต้องเสียค่าใช้จ่าย ใช่หรือไม่
14. Do you receive any kind of assistance/help from the government related to education (school fees, books, other material, etc.)? คุณได้รับการช่วยเหลือทางด้านการศึกษา เช่น ค่าธรรมเนียมการศึกษา หรือ อุปกรณ์การเรียน จากทางรัฐบาลหรือหน่วยงานที่ดูแลเกี่ยวกับเรื่องการศึกษาบางหรือไม่
15. Does any member of your family go to university? If so, which one? ในครอบครัวของคุณ มีสมาชิกที่ได้เข้ารับการศึกษาระดับอุดมศึกษา(มหาวิทยาลัย)บ้างหรือไม่  
ถ้ามี เป็นสมาชิกคนไหนครอบครัว
16. Does the university help you in terms of transportation or accommodation? ทางมหาวิทยาลัยได้มีการให้ความช่วยเหลือทางด้านการเดินทางหรือด้านที่พักบ้างหรือไม่
17. Do you feel education is promoted in your neighborhood? คุณรู้สึกว่าการศึกษามีการส่งเสริมจากบริเวณชุมชนที่คุณอาศัยอยู่ หรือจากทางรัฐบาลบ้างหรือไม่
18. If you could afford any kind of education, what would it be (international education in Bangkok, university, study abroad)? Why? ถ้าคุณสามารถเลือกการศึกษาระบบใดก็ได้โดยไม่มีปัจจัยเรื่องเงินเข้ามาเกี่ยวข้อง คุณอยากเข้ารับการศึกษารูปแบบไหน (ตัวอย่างเช่น หลักสูตรนานาชาติในกรุงเทพ , การศึกษาต่อในระดับมหาวิทยาลัย หรือการศึกษาต่อในต่างประเทศ )  
และเพราะเหตุใดคุณจึงเลือกการศึกษาระบบนั้น
19. Do you agree that education is a human right? Why? คุณเห็นด้วยหรือไม่กับคำพูดที่ว่า “การเข้าถึงทางการศึกษาเป็นสิทธิขั้นพื้นฐานที่มนุษย์ทุกคนสมควรได้รับ” เพราะเหตุใดคุณจึงคิดเช่นนั้น

# Using Competency Based Training to Developed Nursing Services in the Medical Tourism Industry in Thailand

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## Abstract

The objectives of this research were to identify the core competencies for nursing services and determine the training course for nurse staffs regarding medical tourism service system on private hospitals in Thailand. Quantitative data were collected by using the questionnaires from 96 nurse staff respondents. The index content validity of those questionnaires was tested with I-CVI method and overall content validity was tested with S-CVI/Ave, both of them valued 0.87 passing criteria was defined, and tested reliability with Cronbach's alpha was 0.96. Data were analyzed using frequency, percent, mean, standard deviation, one-way Anova, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA).

The findings indicated that the competency based training course were 3 subjects: 1) Caring for elderly patients in elderly top 5 diseases, including heart disease, cancer, stroke, pneumonia and chronic obstructive pulmonary disease (COPD). 2) Medical Investigation; physical examination, assessment of the health history, X-ray testing, and ultrasound testing, 3) Preparation for medical diagnostics; cervical cancer screening, eye examination, preparing patients cosmetic surgery and preparing patients orthopedic surgery.

**Keywords:** medical tourism, nursing services, competency, training, service, private hospitals

## Introduction

A growing phenomenon especially in many countries of Southeast Asia has emerged in recent years. It's called, "medical tourism." Patients travel from their home country to foreign countries' hospitals and clinics seeking medical care. Nurses play a significant role in the perception by patients of quality of care. Of course doctors are perhaps the most important factor by which patient care is evaluated, but from the patient's perspective, both doctors and nurses create the basis of patient's experience of the quality of the medical care at a hospital. This paradigm shift in hospital care for increasing numbers of foreigners has put the spotlight on nursing care. The challenge now facing hospital nursing staffs and their managers is meeting the professional medical care standards as well as providing a spirit of caring and understanding. In Thailand in particular, the "Land of Smiles," this service attitude is ingrained for many Thais as a shared cultural value. However, a major contributor reason for this attitude is also based on the fact that Thailand relies on the service industry for 44% of its GDP, including tourism. (Schwab, 2010) Indeed, when it comes to the medical tourism market

Thailand is not alone. According to service quality surveys, Thailand and Singapore, for example, are ranked equally at 5.4 while Japan scored 6.4 in a comparative ranking. (Pattamaroj, 2012) With the recent push by the government in Thailand to be a leading partner in the newly formed confederation of Southeast Asian Nations, (ASEAN) there has been a growing awareness in the nursing profession that in order to compete effectively and to do a better job in addressing the needs of the medical tourist industry a better model for nurses' training was needed.

A quick overview illustrates the situation. Private hospitals offering world-class medical services have resulted in increased demand from overseas patients. (NaRanong & NaRanong, 2011) While Thailand is a leading medical hub for medical tourism, it is followed closely by India. As a means of creating an international standard for evaluating care by overseas hospitals the "Joint Committee International" standard, (JCI) was created in the United States. The number of hospitals certified as meeting the JCI standard in Southeast Asia as of 2011 are as follows: Singapore, 18 hospitals, Thailand 13 hospitals, and Malaysia 7 hospitals. (Noree, Hanefeld & Smith, 2016) Furthermore, a study of "complicated treatments" in Thailand and India revealed that India's hospitals had 16.7 %, while in Thailand the total was 15%. (Ruggeri, et al., 2015)

Among the key factors when considering treatment outside of the medical tourist's home country are many considerations including: politics, economics, climate, professional standards, regulatory standards, quality assurance services, and of course, cost. (Smith & Forgione, 2007) A further incentive has been the relative decline in travel costs, making international travel destinations more accessible to greater numbers of people. In addition, another key factor for patients choosing to treatment outside of one's home country is the question of insurance coverage. For example, in 2013 a striking number — 27% percent of American women between 45-64 years old with annual incomes between \$50,000-\$100,000 USD were not covered by health insurance and sought medical treatment in another country. The obvious conclusion to be drawn was the cost savings of up to 80% for treatment abroad. Consider this dramatic illustration — in the United States, for example, pelvic orthopedic surgery often costs in the neighborhood of \$39,000 plus hospital expenses which may be considerable, whereas, in Thailand the cost will be closer to \$3,000. (Kotler, Hermawan, & Den, 2015)

All this has put increasing competitive pressure on the nursing profession. Another way to grasp the impact medical tourism is having on hospitals, is the fact that two major private hospitals in Bangkok-Bumrungraj and Yanhee hospitals provide more than ten interpreters in their hospitals, and had elderly care departments specializing in providing care and services for elderly people from abroad. (NaRanong, 2011) With this increasing demand for better quality medical treatment, including nursing care, the medical tourism industry evinces a concomitant need for improved nurses' training in core areas of medical competencies. The main objectives of the research and investigations for this paper were to identify and define the core competencies for nursing services, and determine an optimal training course for nursing staffs in order to meet the demands of the medical tourism patients at private hospitals.

## Literature Review

### 1. Caring for elderly increasing demand

Today's global markets offer greater mobility than ever before. The demographic that most exemplifies this trend is the senior market. Among advanced developed nations, for example, Japan and the United States it is estimated that in the next 25 years Japan's seniors will account for a third of the country's population. In America, it is projected that by 2050 one



in five Americans will be elderly, about eighty million Americans, almost 20% of the total population. (Ghadar & Loughran, 2014). In the U.S., the Center for Disease Control, (CDC) recently disclosed that the five leading causes of death in the elderly were: heart disease, cancer, strokes, pneumonia or influenza and Chronic Obstructive Pulmonary Disease (COPD). For this study, researchers identified the competencies needed to care for foreign elderly in these six major diseases as follows:

- 1) Caring competency to care the elderly patients with heart disease
- 2) Caring competency to care the elderly patients with cancer
- 3) Caring competency to care the elderly patients with stroke
- 4) Caring competency to care the elderly patients with pneumonia
- 5) Caring competency to care the elderly patients with influenza, and
- 6) Caring competency to care the elderly patients with chronic obstructive pulmonary disease

## **2. Health screening Check-ups - medical records from Thailand's largest hospital for treating foreigners provides additional data**

Bumrungrad Hospital's medical records, demonstrate how Bumrungrad Hospital has the highest number of foreign patients in Thailand. Bumrungrad Hospital is then followed by other JCI accredited hospitals. The health check services conducted by nursing staffs consist of eight key areas, or major parts: (Bumrungrad Hospital, 2015).

- 1) Competence with physical examination
- 2) Competence with assessment of the health history
- 3) Competence with laboratory testing
- 4) Competence with X-ray testing
- 5) Competence with ultrasound testing
- 6) Competence with cervical cancer screening
- 7) Competence with eye examination, and
- 8) Competence with giving vaccination.

## **3. Surgery treatment service**

A survey of the surgical services offered by leading private hospitals with foreign patients reflects the majority were comprised of aesthetic plastic surgery treatments, cosmetic treatments, and sex change operations. For these procedures, nursing functions also require additional competencies, for example-competence with preparing patients for cosmetic surgery, competence with preparing patients for orthopedic surgery and, competence with preparing patients for sex change surgery. (Bumrungrad Hospital, 2015).

## **4. Dental care adds to the list of necessary nursing competencies**

According to medical records at Bumrungrad Hospital most foreign patients came to the dental clinic requiring eight kinds of treatments including: general dentistry, pediatric dentistry, orthodontics, root canal treatment, gum disease treatment, denture dentistry, oral surgery and tooth implantation. (Bumrungrad Hospital, 2015). This data provided the basis for additional nurses' competencies for foreign patients who receive dental treatment for adults and children.

In this study, a conceptual model is based on the principles of 'Competency Based Training' (CBT) used by the Association of Southeast Asian Nations, ASEAN. (2012) This

approach describes core competencies into twenty-five critical care area. In applying this model, the many nursing functions are defined according to a list of tasks, referred to as units of competency.

This competency framework was employed in the design of the nurses' survey for this research. The literature reviews on this topic also are classified according to competencies of nursing service indicators of 25 items. For the statistical purposes of this study, these items have been classified according to exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) to determine core competencies.

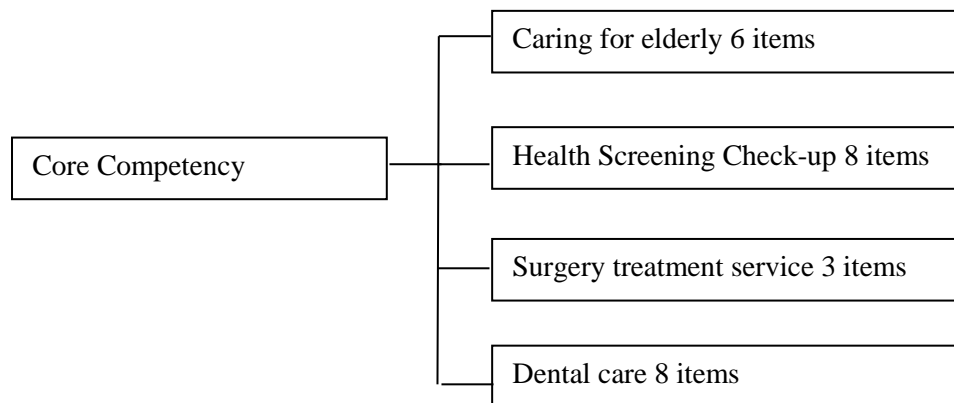


Figure 1. Conceptual Framework

## Methodology

Our study was conducted in three phases. In Phase 1 descriptive research was employed to analyze the model of the core competencies of the nursing staffs. In Phase 2 the model of core competencies was determined by exploratory factor analysis. In Phase 3 researchers applied a model of core competencies by confirmatory factor analysis.

### Phase 1: Creating the model of the core competencies of the nursing staffs

The research for the questionnaire was designed using descriptive research in order to analyze and determine the core competencies of the nursing staffs that care for and attend to foreigners. The questionnaires themselves were developed by literature reviews and were pre-approved by a panel of five experts; The Director of private hospital, specialist in educational development, service provider in tourism industry, instructor in nursing and the nurse practitioner in medical tourism. The index content validity was tested with Item Content Validity Index (I-CVI) method and resulted in values of 0.87, notably high. The overall content validity was tested with Content Validity for Scale/Average Proportion (S-CVI/Ave) and resulted in valued of 0.87 also high. This resulted in a Cronbach's alpha tested internal consistency of 0.96. Quantitative data were collected by using the questionnaires twenty-five items and applying a rating scale of five descriptive levels. Each question pertained directly to the necessary technical competence for nurses providing care to foreigners.

### Survey Participants

The target nurses selected for the study all worked at private hospitals and the questionnaire was completed by 96 respondents from nine different private hospitals in Thailand. Each hospital was accredited by the Joint Commission International (JCI) standard. The initial findings and analysis from the respondent's questionnaires resulted in a clear picture

of the core competencies of the nurses, as well as revealing several areas where further training is needed. A prior assessment of patient populations was determined based on hospital beds assigned to foreigner patients and the estimated nursing staffs, (Thailand Nursing and Midwifery Council, 2005.) Prior to this study there were nineteen hospitals accredited by the JCI standard in Thailand as of 2012. (Kumpong, 2012) The sample size from the number of foreigners admitted to 23 internationally-accredited private hospitals included a population of approximately six patients per ward. The total population was 391. The appropriate sample size was 59-117 in this study. (Pasunon, 2010)

### **The Five Levels of Response Possible on the Questionnaire**

- Level 5: Strongly agree, (average score 4.21-5.00)
- Level 4: Agree, (average score 3.41-4.20)
- Level 3: Neither agree nor disagree, (average score 2.61-3.40)
- Level 2: Disagree, (average score 1.81-2.60)
- Level 1: Strongly disagree, (average score 1.00-1.80)

Data analysis was extracted according to statistical analysis functions - Frequency, Percentage, Mean, and Standard Deviation. Based on the performance needs survey, the researcher selected the level of need for performance at a higher level from past surveys. The indicators will be grouped according to exploratory factor analysis. The results of this research evinced 16 indicators of competencies as follow:

1. Caring competency to care the elderly patients with heart disease.
2. Caring competency to care the elderly patients with cancer.
3. Caring competency to care the elderly patients with stroke.
4. Caring competency to care the elderly patients with pneumonia.
5. Caring competency to care the elderly patients with influenza.
6. Caring competency to care the elderly patients with chronic obstructive pulmonary disease
7. Competence with physical examination.
8. Competence with assessment of the health history.
9. Competence with laboratory testing.
10. Competence with X-ray testing.
11. Competence with ultrasound testing.
12. Competence with cervical cancer screening.
13. Competence with eye examination.
14. Competence with giving vaccination.
15. Competence with preparing patients cosmetic surgery.
16. Competence with preparing patients orthopedic surgery.

### **Phase 2 Developing model of those core competencies by exploratory factor analysis.**

The requirements for a dataset to be suitable for factor analysis must be tested by Bartlett's test of sphericity and Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO). The results were passed examine both requirements at .05 significance level, shown as table 1

Table 1. Results of Bartlett's Test of Sphericity

<b>Assumption</b>		<b>value</b>
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.86
Bartlett's Test of Sphericity	Approx. Chi-Square	1450.26
	df	129
	Sig.	.00

A factor extraction method used was based on the principal components analysis technique (PCA). The results of factor extraction chosen revealed the components to have eigenvalue is greater than or equal to 1.0. Factor rotation by promax method, were chosen from factor loading > 0.03 as table 2. (Jaroenwisan, 2009)

Table 2. Factor loading matrix, oblique rotation constrained to factor with eigenvalues &gt; 1

<b>Items</b>	<b>Components</b>		
	<b>1</b>	<b>2</b>	<b>3</b>
1	.86	.46	.39
2	.84	.35	.53
3	.87	.37	.40
4	.89	.37	.41
5	.69	.46	.35
6	.91	.43	.38
7	.54	.80	.24
8	.50	.87	.30
9	.21	.80	.45
10	.37	.86	.62
11	.33	.88	.61
12	.40	.44	.89
13	.47	.52	.90
14	.50	.77	.55
15	.37	.39	.82
16	.54	.59	.73
<b>Eiuevalue</b>	<b>8.03</b>	<b>2.27</b>	<b>1.51</b>
<b>Cumulative%of variance</b>	<b>50.20</b>	<b>64.38</b>	<b>73.80</b>

### Phase 3 Confirmation of a process model of those core competencies by confirmatory factor analysis, CFA

The first requirements for a dataset to be suitable for confirmatory factor analysis must be in normal distribution as table 3.

Table 3. Statistical values for the normal distribution test of components and metrics.

Items	mean	S.D.	skew	kurtosis	min	max
1	4.13	.899	-0.74	-0.35	2	5
2	3.80	.924	-0.26	-0.51	1	5
3	4.16	.845	-0.70	-0.31	2	5
4	3.99	.826	-0.81	0.94	1	5
5	3.90	.754	-0.25	-0.33	2	5
6	3.88	.851	-0.42	0.04	1	5
7	4.07	1.049	-1.14	0.68	1	5
8	4.18	.978	-1.42	1.86	1	5
9	4.13	.785	-1.20	3.00	1	5
10	3.98	.832	-0.47	-0.37	2	5
11	3.99	.838	-0.48	-0.40	2	5
12	3.62	.913	-0.24	-0.39	1	5
13	3.57	.897	0.07	-0.79	2	5
14	3.81	1.048	-1.08	0.73	1	5
15	3.44	1.134	-0.40	-0.50	1	5
16	3.92	1.007	-0.81	0.33	1	5

The result tested reflected an acceptable normal distribution, skewness +1 to -1, Using multidimensional scaling (MDS) for correlation revealed that stress and squared correlation (RSQ) in distances was 0.98 passed criteria ( $0 \leq RSQ \leq 1$ ). (Ryu, 2011) Therefore, these data can be analyzed by confirmatory factor analysis, (CFA).

A confirmatory factor analysis was derived from the factor structure obtained in exploratory analysis. The maximum likelihood method to estimate all model, resulting from confirmatory factor analysis passed the criteria for distribution and no value was inordinately skewed, This was indicative of relative univariate normality for each item. The confirmatory factor analysis fit appropriately

The indices: RMSEA (0.09), CMIN/DF (1.86), RMR (0.08), CFI (0.94), NFI (0.92) were calculated and the findings indicated the correlation between the model and observed structure and determine the core competencies of nurse staffs in medical tourism service. This in turn determine the training course for nurse staffs regarding medical tourism at private hospital in Thailand. The 3 main categories were 1) Caring for elderly patients 2) Medical Investigation 3) Preparation for medical diagnostics as shown in the figure 2.

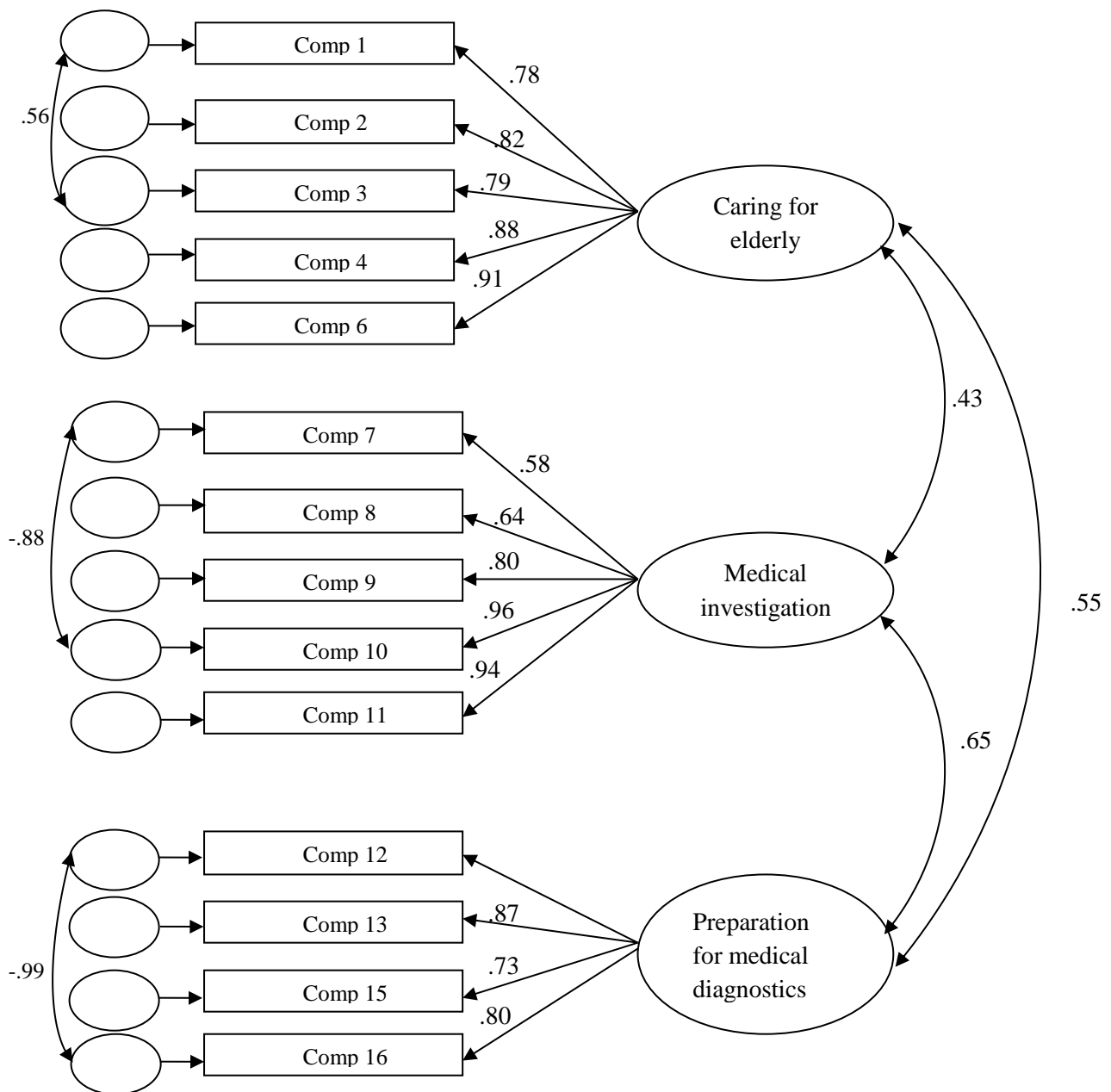


Figure 2. Confirmatory Factor Analysis

## Result

The result of confirmatory factor analysis and exploratory factor analysis indicate that the scale has a structure with 3 factors showed high reliability, with alpha coefficients higher than .80, following the table 4, 5, 6



Table 4. Description of items in factor 1 (caring for elderly)

Item	Description	Loading
1	Caring competency to care the elderly patients with heart disease.	0.86
2	Caring competency to care the elderly patients with cancer.	0.84
3	Caring competency to care the elderly patients with stroke.	0.87
4	Caring competency to care the elderly patients with pneumonia.	0.89
6	Caring competency to care the elderly patients with chronic obstructive pulmonary disease.	0.91

Table 5. Description of items in factor 2 (medical investigation)

Item	Description	Loading
7	Competence with physical examination.	0.80
8	Competence with assessment of the health history.	0.87
9	Competence with laboratory testing.	0.80
10	Competence with X-ray testing.	0.87
11	Competence with ultrasound testing.	0.89

Table 6. Description of items in factor 3 (preparation for medical diagnostics)

Item	Description	Loading
12	Competence with cervical cancer screening	0.89
13	Competence with eye examination	0.90
15	Competence with preparing patients cosmetic surgery	0.82
16	Competence with preparing patients orthopedic surgery	0.73

These results indicate the following structure for training for nursing staffs with respect to medical tourism patients in private hospital in Thailand. See the figure 3.

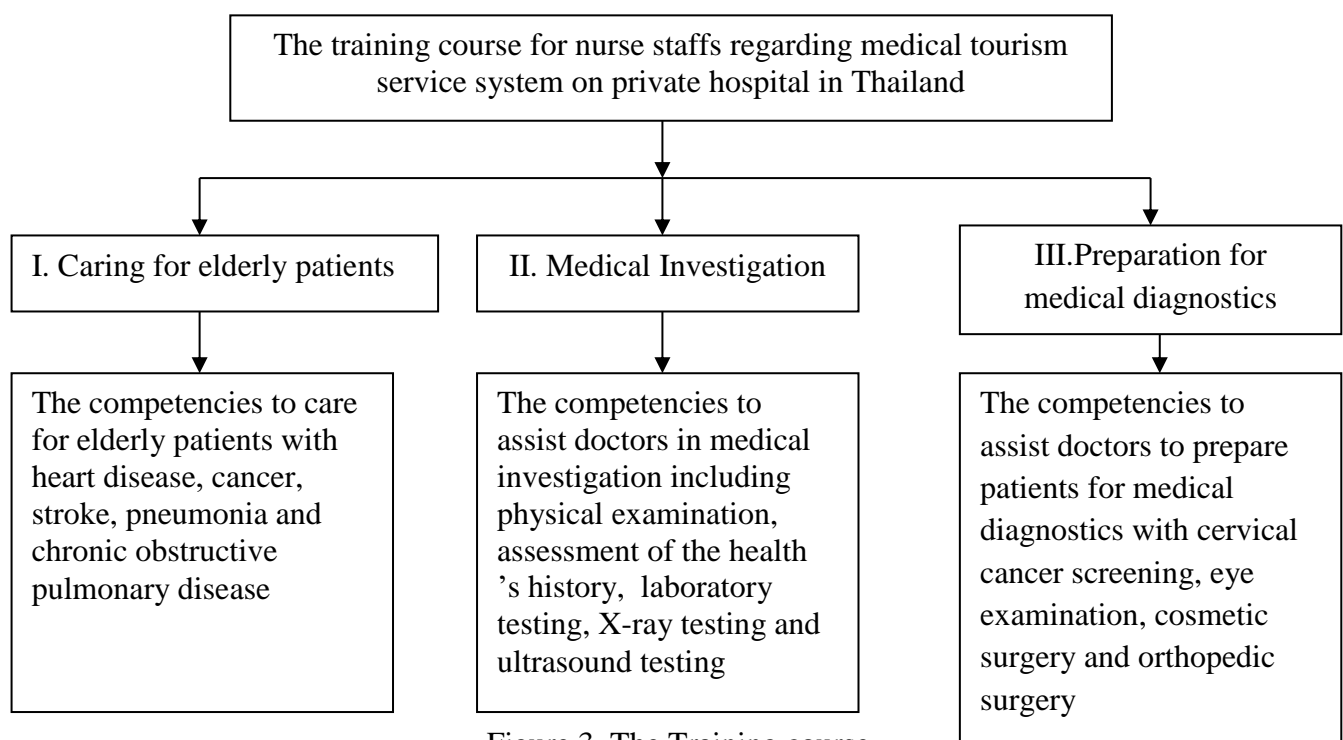


Figure 3. The Training course

## Discussion

Past studies found that nursing staff graduated from various institutions. The course was not to focus on providing to foreign patients who have specific needs are different from Thai, such as in cosmetic surgery, or sex change, but this course can only found some nursing assistants schools. These school offers specialized courses in the care of the elderly and some of which offer specialized Japanese courses.

So, this research was based on the concept on the principles of competency based training (CBT). The results describe a template model of how to develop programs for nurse staffs who attend to foreigners coming for treatment at private hospitals. In summary, the research indicate three main elements:

1) Caring for the elderly consists of competencies to care for elderly patients with heart disease, cancer, stroke, pneumonia and chronic obstructive pulmonary disease. The competencies illustrated below include the patients seeking treatment of stroke, heart disease, pneumonia, chronic obstructive pulmonary disease and cancer. A survey of elderly health by the Center for Disease Control (CDC) in the United States found that the top five causes of mortality of elderly include: heart disease, cancer, stroke, pneumonia/influenza and chronic obstructive pulmonary disease (COPD). These finding are very similar to the elderly population worldwide as table 7

Table 7. The cause of dead in elderly more 65 year old (Sahyoun, Lentzner, Hoyert & Robinson, 2001)

White	Black	American Indian	Asia/Asia Pacific	Hispanic*
heart disease	heart disease	heart disease	heart disease	heart disease
cancer	cancer	cancer	cancer	cancer
stroke	stroke	diabete	stroke	stroke
COPD	diabete	stroke	Pneumonia/influenza	COPD
pneumonia/influenza	pneumonia/influenza	COPD	COPD	pneumonia/influenza

*Note \* A group of Hispanic population is located in Mexico , Puerto Rico, Cuba, South America, Central America, and Caribbean, etc*

2) Medical investigation consists of competencies to perform physical examinations, assessment of the health history, assisting X-ray testing, and ultrasound testing. These competencies related health screening check-ups were derived from research data from foreigners, who came to Thailand from Japan, The United State, and The United Kingdom, Admissions records show patients treated by surgery were about 48%, heart disease 24% and health screening check-ups 16% (Sewasud, 2010). The patients undergoing health check-up programs at Bumrungraj hospital were examined in eight key areas: physical examination, assessment of the health history, laboratory testing, x-ray testing, ultrasound testing, cervical cancer screening, eye examination, and advice on getting the vaccine. This research further confirmed the competency evaluation of professional staff nurses, arranged by descending order including; assessment of the health history, laboratory testing, physical examination, ultrasound testing, X-ray testing, providing advice on getting the vaccine, cervical cancer screening and eye examination.

3) Preparation for medical diagnostics consists of competency to care patients with with cervical cancer screening, eye examination, cosmetic surgery and orthopedic surgery. The research data were again based on hospital records showing foreigners who came from Japan, United State, and United Kingdom admitted in private hospitals in Thailand. Here again most patients were treated by surgery, approximately 48%, of which many were treated for artificial joint replacement surgery, spine surgery and cosmetic surgery. The survey data from

the patients undergoing surgery at private hospital of Thailand also included admissions for cosmetic surgery, orthopedic surgery, and sex change surgery. This research found that the competency of professional staff nurses arranged by descending order including; orthopedic surgery, cosmetic surgery and sex change surgery. (NaRanong & NaRanong, 2011) Many patients from Japan were admitted for orthopedic surgeries, artificial joint replacement surgery, surgery for a lumbar herniated disc, spine surgery and cosmetic surgery

The limitations of this study, only for only foreigners in the private hospital group were studied. However, it can be further developed research to find the needs and increase access to medical tourism services from customers who come to Thailand by researching for different foreign customer-groups, for example in health tourism groups, cultural tourism groups, etc.

Policy Recommendations for Thailand, while the trend of health market for foreign customers is increasing. Specialized nursing courses should be provided in curriculum. For example, the foreigner's care for elderly patients, cosmetic surgery care, etc.

## Conclusions

The results of this research confirmed that the competencies of nurses for medical tourism services consisted of three primary components and 14 items; 1) Caring for the elderly five items 2) Medical investigation five items and 3) Preparation for medical diagnostics four items. The results of this study will be useful to those involved in each of the following:

- 1) Private and government hospitals can apply research information to create training courses for their staff nurses attending to foreign patient.
- 2) Education institutions can apply the research for their managers for building the nursing curriculum.
- 2) Hospitals in ASEAN countries can adapt the research and use it as a guide in the development of competencies for their nursing staffs.
- 3) Researcher and academics can apply the data for the development of programs for the broader field of medical tourism.

Further research should be studied the education management model of competencies developed for service providers in the medical tourism industry, it may be arranged in non-formal education or may be one of the subjects in the curriculum of tourism or nursing. In order for the graduates to have the knowledge and skills to serve foreign tourists who come to receive treatment in Thailand.

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# Big Audit Firm: Do Thai Firms With Good Board And Audit Committee Structures Use It As A Monitoring Tool?

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## Abstract

As big audit firm can provide better audit quality which results in good monitoring to support effective corporate governance system, this study aims to determine the relationship between corporate governance mechanisms, such as board and audit committee structures, and use of big audit firms as a monitoring function of Thai listed firms. To examine this relationship, the logistic estimator is applied for the data of 442 listed firms in the Thai stock market for 15 years from 2001 to 2015. The results from the logistic analysis show that good corporate governance mechanisms have association with use of big audit firms; that is, board independence, and audit committee meeting frequency have significant positive relationship with selecting big audit firms as monitoring tool of Thai listed firms, but dual role of leadership on board results in the opposite association.

**Keywords:** corporate governance, board of directors, audit committee, big audit firm, audit quality, Thailand

## Introduction

When conflicts between owners and agents are addressed as the firm is managed by the agents who are not the owners of the firm, the owners need to ensure that the agents carry out their duties based on the best interests of the owners. Thus, the monitoring provision is introduced to oversee activities of the executives (Puffer & Weintrop, 1991). Corporate governance mechanism suggests monitoring system in terms of separation of decision control function from decision management function (Fama & Jensen, 1983b). The board of directors and its subcommittees as core elements of corporate governance play particular roles on behalf of the owners in overseeing the activities within the firm (Fama & Jensen, 1983a, 1983b). The board of directors acts as a connection between owners and executives. It not only serves the firm as a supervisor, but also helps to monitor behaviour of executives to ensure that executives of the firm act for the benefit of the owners rather than for themselves (Adams, Hermalin, & Weisbach, 2008; Stiles & Taylor, 2001).

Thus, the monitoring function of the board is one of good internal control mechanisms for controlling activities of executives (Beasley, 1996; Fama & Jensen, 1983a, 1983b; Hermalin & Weisbach, 1991). At the same time, an audit committee plays its roles to support the monitoring function of board of directors (Adams et al., 2008; Chhaochharia & Grinstein, 2007; Vafeas, 1999). The audit committee helps to review the information about managerial activities and decision-making which are performed by the executives (Adams et al., 2008; Gendron & Bédard, 2006; Klein, 1998, 2002a, 2002b).

This committee also oversees financial reports, reviews adequacy of the internal control and risk management process, reviews audit function as well as supervises both external and internal auditors (Nam & Nam, 2004). The board and audit committee generally use an annual audit as one of the monitoring instruments to determine activities of executives, by checking the way in which the firm's statements have been prepared and reported (Cadbury Committee, 1992). This helps to identify that whether their performance is carried out in line with the best interest of the owners. To serve the monitoring function, the board and audit committee appoint auditors as an independent and effective monitoring tool in determining the firm's financial statements which reflect performance of executives (Holm & Laursen, 2007; Lin & Liu, 2009). The particular reason for hiring auditors is that the owners typically need quality information to determine the decision-making of executive.

One important source of trustworthy information is financial statements which are reviewed by certificated independent auditors. Significantly, to ensure high-quality of disclosed information in financial reports, audit quality is in demand of the shareholders. Generally, the shareholders believe that a better audit quality, which ensures transparency and no significant mistakes in financial reports, comes from auditors from big audit firms, because they want to protect their reputation and avoid costly allegation (Francis & Yu, 2009; Lennox & Pittman, 2010). Besides, there are more in-house experienced auditors in big audit firm. This helps to deal with particular issues of the clients, so this means that there should be more peers who provide apt suggestions in producing better audit quality (Francis & Yu, 2009; Lin & Liu, 2009; Michaely & Shaw, 1995).

In Thailand, the major corporate governance mechanisms in monitoring executives' activities, in order to protect shareholders' interests, are the board of directors and audit committee. Thence, the success of overseeing may depend on the selected monitoring tool. Obviously, the Thai listed firms hire external auditors to act as a monitoring function in determine the performance of executives, and the auditors from big audit firms are generally entrusted that they can provide higher quality in supporting monitoring function of the board and audit committee. Therefore, this study aims to investigate the relationship between structures of the board and audit committee, and use of big audit firms as monitoring tool of the Thai firms in the stock market.

## **Literature review and hypotheses development**

### **Corporate governance and audit function**

In Thailand the corporate governance system was reformed after the Asian financial crisis, which indicated that a weak corporate governance system, such as poor protection of minority shareholders from expropriating of majority shareholders, and poor information disclosure standard, was the main cause (Nam & Nam, 2004; Pathan, Skully, & Wickramanayake, 2007). To upgrade the level of corporate governance in Thailand, regulations and rules of both the Securities Exchange Commission (SEC) and the Stock Exchange of Thailand (SET) are formulated to suggest the roles of boards of directors in establishing a good corporate governance system in listed companies, and an audit committee is required to support monitoring function of the board in all Thai listed companies.

Moreover, all listed companies are required to disclose their information in an annual report, together with an auditor's report, based on related accepted accounting standards (The National Corporate Governance Committee, 2012). For appropriate monitoring function based on good corporate governance, the selection of an independent auditor should be a particular factor, because the independence of an auditor evidently has a positive influence on probability of the auditor to find and report some misstatements in the financial report, reflecting the mistakes of the executives (DeAngelo, 1981).



In other words, the independent auditor provides effective monitor, so the good corporate governance system prefers an audit function with high quality, such as auditors from big audit firms, to support monitoring provision.

### **Board of directors and audit function**

Board of directors' characteristics usually influence on ability in monitoring management functions to protect shareholders' wealth (Beasley, 1996). Agency theory suggests that independence of the board of directors can reduce the self-interest of executives as well as lead the board to discharge their duties to monitor executives better (Black, 2001; Weisbach, 1988). Consequently, monitoring function of independent directors can influence better shareholders' wealth. Thus, some studies, such as O'Connell and Cramer (2010), Rouf (2011), Sami, Wang, and Zhou (2011), and Lei and Song (2012), report that independence of the board of directors helps to improve value of the firm. This not only results in better firm value, but board independence also helps to protect the firm from fraud, as found in studies of Beasley (1996) and Lennox and Pittman (2010). As mentioned, the board of directors can effectively monitor the management team when it can work independently, so when the board of directors is influenced by managers, its effectiveness could be generally decreased. For the case where a chairman of the board also serves as the chief executive of the firm (i.e. CEO), the monitoring mechanism, which is provided by the board of directors to review executives' activities, is no longer effective and trustworthy. In effect, shareholders' interests may be diminished (Bhagat & Bolton, 2008; Erah, Samuel, & Izedonmi, 2012).

From this it can be concluded that good board structures with strong independence influence on effective monitoring to protect rights of shareholders, but weak board structures result in poorer protection for shareholders' benefits. Particularly, there is evidence reporting that the firms with weak board structures tend to switch to smaller auditor with lower audit quality to sustain the control and benefits on hand of executives rather than serving owners' interests (Lin & Liu, 2009; Shan, 2014). Therefore, it can imply that the firm with good board structure tends to use auditors from big audit firms to maintain higher audit quality as effective monitoring tool, leading to increase in firm value and decrease in fraud. Therefore, the following hypotheses are formed in line with this evidence.

H1a: Board independence is positively related to use of big audit firms.

H1b: Dual role of leadership on board is negatively related to use of big audit firms.

### **Audit committee and audit quality**

Audit committee independence usually increases effectiveness of the board's monitoring function, because the functions of the audit committee, including reviewing financial reporting as well as overseeing activities of executives, are linked to the success of the board of directors. When an audit committee works independently, it can effectively monitor executives' behaviour on behalf of the board. As a result, a successful performance of the board leads to shareholders' wealth maximization. The study of Tornyeva and Wereko (2012) shows that audit committee independence is positively related to firm value, while Beasley, Carcello, Hermanson, and Lapides (2000), Abbott, Park, and Parker (2000), Klein (2002a), and Lennox and Pittman (2010) find that companies with more independence of the audit committee are related to lower fraud and earning management. This supports the view that when the audit committee works independently, it can review financial reporting and oversee management's activities effectively. Normally, an audit committee holds regular meetings with both external and internal auditors. The meeting of an audit committee and auditors can help the committee consider financial reports and apply policies to assess the practice of the executives.

Thus, more meetings of the committee should result in a better monitoring mechanism which can convince executives to perform their duties better. Therefore, Azam, Hoque, and Yeasmin (2010) report that meeting frequency of an audit committee results in better protection for firm value. Moreover, Beasley et al. (2000) and Lennox and Pittman (2010) support that companies tend to commit fraud when their audit committees have less frequent meetings. Significantly, there is evidence posits that the audit committee functions relate to audit quality of auditors who are appointed to support monitoring function in performing to protect shareholders' benefits (Abbott et al., 2000). With regard to the previous studies, it can be concluded that an audit committee with good characteristics prefers high audit quality as monitoring function to enhance better firm performance and to eliminate fraud and earning management. Thus, the following hypotheses are formed to determine the relationship between audit committee's characteristics and use of auditors from big audit firms.

H2a: audit committee independence is positively related to use of big audit firms.

H2b: audit committee meeting frequency is positively related to use of big audit firms.

## Methodological approach

### Data and samples

To measure variables of the empirical models, this study hand-collects data from financial statements, the database of the Stock Exchange of Thailand (SET), and the disclosure reports concerning additional information (Form 56-1) of each sample for the period of 15 years from 2001 to 2015. This study excludes some types of companies, such as companies in the MAI industry, companies under rehabilitation (REHABCO), the property fund sector, and companies in the financial industry. There are particular reasons to preclude those types of companies. Firstly, the companies in MAI industry are classified as medium size enterprises which do not fully comply with corporate governance guidelines. Secondly, the companies under rehabilitation (REHABCO) generally provide incomplete data in their annual reports. Thirdly, transactions of the companies in property fund sector are quite unique comparing with other businesses. Lastly, the companies in financial sectors have different characteristics, such as high leverage, which cause significant differences in financial data comparing with other industries. Then after excluding these types of companies, this study selects the final samples from companies which completely provide their information to the SET without missing any significant information.

Table 1 presents the number of sample companies in this study based on the sampling procedure. For the year 2001 to 2015, there were 5,984 firm-year companies which traded their stocks on the Stock Exchange of Thailand (SET). After excluding companies in MAI, REHABCO, property fund, and financial firms, and companies with significant missing data, there are 5,110 final samples in this study.

Table 1. Final samples of the study

Details	Number of observations
<b>Population</b>	5,984
<b>Excluding irrelevant sectors/industries</b>	(312)
<b>Initial samples</b>	5,672
<b>Excluding;</b>	
Missing of corporate governance data	(301)
Missing of control variable data	(261)
<b>Final samples (firm years)</b>	5,110
<b>Final samples (firms)</b>	442

### Empirical models

This study attempts to verify the effect of the board of directors and audit committee's characteristics on use of auditors from big audit firms as monitoring tool, so the following empirical models are constructed.

$$BigF_{it} = \beta_i + \beta_1 BI_{it} + \beta_2 DRL_{it} + \beta_3 ROA_{it} + \beta_4 FO_{it} + \beta_5 FS_{it} + \beta_6 GO_{it} + \beta_7 IND_i + \beta_8 YEAR_t + \varepsilon_{it} \quad (1)$$

$$BigF_{it} = \beta_i + \beta_1 ACI_{it} + \beta_2 ACMF_{it} + \beta_3 ROA_{it} + \beta_4 FO_{it} + \beta_5 FS_{it} + \beta_6 GO_{it} + \beta_7 IND_i + \beta_8 YEAR_t + \varepsilon_{it} \quad (2)$$

$$BigF_{it} = \beta_i + \beta_1 BI_{it} + \beta_2 DRL_{it} + \beta_3 ACI_{it} + \beta_4 ACMF_{it} + \beta_5 ROA_{it} + \beta_6 FO_{it} + \beta_7 FS_{it} + \beta_8 GO_{it} + \beta_9 IND_i + \beta_{10} YEAR_t + \varepsilon_{it} \quad (3)$$

Where:

BigF = use of big audit firms, i.e. EY, KPMG, PwC, and Deloitte Touche Tomatsu

BI = board independence

DRL = dual role of leadership on the board of directors

ACI = audit committee independence

ACMF = audit committee meeting frequency

ROA = return on assets

FO = Family ownership

FS = firm size

GO = Growth opportunity

IND = industry

YEAR = time period

Apart from dependent and independent variables, number of control variables are also introduced to include in the empirical model, because this study believes that not only board and audit committee characteristics are factors in hiring auditor from big audit firm, but also some other factors. The firm with good performance and with good growth rate usually wants to retain or increase its performance, so using quality auditor from big audit firm may help the firm to review performance better. This also leads the firm to derive appropriate suggestions from the auditor in improving firm performance. The firm with family members as majority shareholders may not prefer to share firm's wealth to other stakeholders.

To avoid overseeing from other stakeholders, the family owned firm may ignore hiring auditor with high level of independence from big audit firm to review business transactions. While firm with bigger size may have greater resources or budgets to hire auditor from big audit firm to review business activities, the firm in some industries may involve complex activities, and needs expertise from big audit firm to review the business activities. Moreover, different time period may result in change in business environment, leading the firm to deal with different circumstance.

Thus, for some periods, the firm may prefer auditor with high experience from big audit firm to help in dealing with the unfamiliar events. Therefore, the variables involved in the empirical models composed of dependent, explanatory and control variables. Measurements of the variables are presented in Table 2.

Table 2. Measurements of variables

Dependent variable:		
BigF	Use of big audit firms	Value 1 when the firm audited by an auditor from one of big four audit firms, i.e. EY, KPMG, PWC, and Deloitte Touche Tomatsu
Explanatory variables:		
BI	Board independence	Proportion of independent or outside members on board of directors
DRL	Dual role of leadership	Value 1 when an executive is also a chairman of board of directors
ACI	Audit committee independence	Proportion of independent directors on the audit committee
ACMF	Audit committee meeting frequency	Number of audit committee meetings in a fiscal year
Control variables:		
ROA	Return on assets	Operating profit divided by total assets
FO	Family ownership	Value 1 when there is a family ownership as the five largest shareholders
FS	Firm size	The natural logarithm of book value of assets
GO	Growth opportunity	Market price per share divided by book value per share
IND	Industry	Dummy value for 7 industries, i.e. food and agro, consumer product, construction, resources, services, and technology
YEAR	Time period	Dummy value for 15 time periods, i.e. 2001-2015

## Empirical analysis

### Descriptive statistics

Table 3 illustrates descriptive statistics of the variables of this study, while Table 4 shows the correlation among independent variables of the study.

Table 3. Summary statistics for variables characteristics

Board independence (BI)	0.345	0.333	0.144	0.000	1.000
Audit committee independence (ACI)	0.822	1.000	0.284	0.000	1.000
Audit committee meeting frequency (ACMF)	4.321	4.000	3.215	1.000	29.000
Return on assets (ROA)	0.064	0.060	0.138	-0.725	0.816
Firm size (FS)*	9.204	9.300	0.643	6.042	12.194
Growth opportunity (GO)	6.648	4.960	9.035	0.198	10.250
Dummy variables:					
Big audit firm (BigF)			Big firms		48.02%
			Other firms		51.98%
Dual role of leadership (DRL)			Dual role		23.61%
			Separated duty		76.39%
Family ownership (FO)			Family members as large shareholders		42.28%
			No family members as large shareholders		57.72%
Industry (IND)			Food and agro		12.24%
			Consumer		10.75%
			Industrial		20.81%
			Construction		17.88%
			Resources		5.66%
			Service		21.55%
			Technology		10.11%
Number of samples					5,110

Note: unit of variables with \* is natural logarithm

Obviously, auditors who can audit financial statements of Thai listed companies must be certified or approved by the SEC. The approved auditors in the Thai capital market can carry out their duty for a term of only five years from the date that they are certified by the SEC. Then they have to apply for a new approval after the end of each term (The Securities and Exchange Commission Thailand, 2010). In line with the statistical figure, it shows that Thai listed firms appoint approved auditors from the big four audit firms, which represents high quality of audit function, by 48.02%. The mean (median) figure for board independence is 0.345 (0.333), indicating that one-third of directors of boards on most Thai listed firms are independent, which is consistent with the criteria set by the SET for good corporate governance practices (The Stock Exchange of Thailand, 2006). When considering dual role of leadership on the board, it constitutes 23.61% of the sample firms. The low proportion of dual role of leadership documents that the majority of Thai firms follow the recommendation of the SET to separate the duty of CEO and chairman of the firm (The Stock Exchange of Thailand, 2006).

The mean (median) of audit committee independence is 0.822 (1.000), implying high independence of audit committees in Thai firms in performing their duties. For audit committee meeting, its mean (median) is 4.321 (4.000), indicating that, on average, the audit committees of Thai listed companies hold meetings every quarter. Regarding control variables, the mean (median) figures of ROA is 0.064 (0.060). This indicates moderate accounting-based performance for listed firms in Thailand during the observed period. Firm size is presented as a natural logarithm figure; its mean (median) value is 9.204 (9.300). The mean figure of growth opportunity signals that average growth of Thai listed firms is close to 7. For categories of ownership concentration, there are family members as large shareholders at 42.28%. This reflects high proportion of family firms in the Thai stock market. In addition, the three largest industry sectors are the service sector (21.55%), the industrial sector (20.81%) and the construction sector (17.88%). The correlation matrixes among independent variables in Table 4 show that there is no multicollinearity in the empirical models because the correlation figures are lower than 0.80, as suggested by Gujarati (1995). Moreover, the result of Variance Inflating Factor (VIF) indicates VIF figures of all predictors lower than five, which is the accepted level for the absence of multicollinearity (Christensen, Kent, & Stewart, 2010; Meeamol, Rodpetch, Rueangsuwan, & Lin, 2011).

Table 4. Pearson correlation and VIF of explanatory variables

(1) Board independence (BI)	1.000								
(2) Dual role of leadership (DRL)	-.071**	1.000							
(3) Audit committee independence (ACI)	.521**	-.043*	1.000						
(4) Audit committee meeting frequency (ACMF)	.139**	-.024	.168**	1.000					
(5) Return on assets (ROA)	.064**	-.042**	.091**	.073**	1.000				
(6) Family ownership (FO)	-.128	.008**	-.011	-.009	.076**	1.000			
(7) Firm size (FS)	.082**	-.071**	.044**	.257**	.149**	.123	1.000		
(8) Growth opportunity (GO)	.086**	-.059**	.052**	.148**	.213**	-.041*	.347**	1.000	
VIF	1.48	1.25	1.51	1.28	1.21	1.09	1.32	1.24	

Note: \*\* is a significant level at <0.01, and \* is a significant level at <0.05

## Empirical results

Table 5 shows the results from the logistic estimator for relationship between corporate governance, including board independence, dual role of leadership on the board, audit committee independence, and audit committee meeting frequency, on use of auditors from big audit firms. This table also reports Pseudo R-squared results, ranked from 13.95% -18.49%; and as well, reports results of the Wald test, which its significant figures confirm no joint relationship among predictors.

**Table 5** Effects of board and audit committee structures on use of big audit firms

Independent variables	Model		
	(1)	(2)	(3)
<b>BI</b>	0.068** (2.190)		0.001*** (3.640)
<b>DRL</b>	-0.000*** (-5.280)		-0.000*** (-4.321)
<b>ACI</b>		0.058* (1.720)	0.075* (1.750)
<b>ACMF</b>		0.000*** (8.150)	0.000*** (6.720)
<b>ROA</b>	0.164 (1.240)	0.932 (0.085)	0.359 (0.261)
<b>FO</b>	-0.003*** (-2.735)	-0.004*** (-3.170)	-0.004*** (-3.248)
<b>FS</b>	0.000*** (8.850)	0.000*** (9.275)	0.000*** (9.184)
<b>GO</b>	0.561 (0.480)	0.940 (0.035)	0.722 (0.270)
<b>IND</b>	Included	Included	Included
<b>YEAR</b>	Included	Included	Included
<b>Intercept</b>	0.000*** (8.240)	-0.000*** (-9.259)	-0.000*** (-7.795)
<b>Wald test</b>	129.244***	124.375***	120.219***
<b>Pseudo R<sup>2</sup></b>	14.63%	13.95%	18.45%
<b>Number of samples</b>	5,110	5,110	5,110
<b>Number of groups</b>	442	442	442

Note: 1) See explanation and measurement for variables in Table 2

2) The t-statistic is reported in parentheses.

3) \*\*\*, \*\*, and \* denote significant level at <0.01, <0.05, and <0.10, respectively.

4) The Wald test represents that independent variables are jointly insignificant.

The first model details effect of board characteristics on use auditors from big audit firms. It shows that board independence has significant positive relationship to use of big audit firms at  $p < 0.05$ , while dual role of leadership has significant negative effect, at  $p < 0.01$ , on use of big audit firms. This implies that board independence is the important mechanism in considering to appoint the auditor with better quality as monitoring tool to oversee decision-making and activities of executives for the best interest of shareholders. On the other hand, when an executive also serves as chairman of the board, the board may be influenced by executives, so the board tends to switch to smaller audit firms, reflecting lower audit quality for monitoring function. This supports that when the board works independently without controlling of any person, such as CEO, the board tends to appoint auditors with high quality from big audit firms to play the monitoring role to support the function of the board.



In terms of control variables, family ownership as large shareholders has significant negative association with use of big audit firms at  $p < 0.01$ , while firm size has significant positive effect, at  $p < 0.01$ , on use of big audit firms. For return on assets and growth opportunity are reported as having no significant influence on use of big audit firms.

As model 2 determines effect of audit committee's characteristics on use of auditors from big audit firms, the results show that only audit committee meeting frequency has strongly positive influence on use of big audit firms at  $p < 0.01$ , but audit independence has weak positive effect at  $p < 0.10$ . From the results it can be implied that meeting of audit committee may include an agenda in selecting auditors with high quality from big firms as a monitoring tool to detect improper behaviour of executives, and to protect the best benefit of shareholders. For control variables, they have identical effects on use of auditors from big audit firms as found in the first model.

In model 3, all characteristics of board and audit committee are examined for their effects on use of big audit firms. The logistic results confirm the outcomes from model 1 and model 2 that board independence and audit committee meeting frequency have significant positive effect on use of auditors from big audit firms, and dual role of leadership on the board has significant negative influence. Moreover, this model reports that audit committee independence has only weak effect at  $p < 0.10$ . All control variables have similar effects on use of big audit firms as reported in previous models.

#### *Discussion of empirical findings of effects of board and audit committee structures on use of big audit firms*

Table 6 concludes regarding related hypotheses and empirical results. It shows that hypothesis H1a which predicts that board independence is positively related to use of big audit firms; hypothesis H1b which predicts that dual role of leadership on the board is negative related to use of auditors from big audit firms; and hypothesis H2b which predicts that audit committee meeting frequency is positively related to use of big audit firms, are accepted.

Table 6. Empirical findings on effects of board and audit committee structures on use of big audit firms

Hypotheses	Prediction	Corporate Governance	Expected sign	Finding Use of big audit firms	Status
<b>H1a</b>	Board independence is positively related to use of big audit firms	BI	+	+	Accepted
<b>H1b</b>	Dual role of leadership on board is negatively related to use of big audit firms	DRL	-	-	Accepted
<b>H2a</b>	Audit committee independence is positively related to use of big audit firms	ACI	+		Not supported
<b>H2b</b>	Audit committee meeting frequency is positively related to use of big audit firms	ACMF	+	+	Accepted

The results support that good board structures, with higher board independence, and without influence of executives on board, lead the board tends to appoint auditors with high quality from big audit firms and encourages them in overseeing executives' decision-making and activities, which may result in better protection of shareholders' wealth. These results are consistent with the ideas of previous studies such as O'Connell and Cramer (2010), Rouf (2011), Lei and Song (2012), Lennox and Pittman (2010), and Lin and Liu (2009).

As audit committee plays important roles in supporting monitoring function of the board, the results of positive relationship between audit committee meeting frequency and use of auditors from big audit firms should reflect that the committee uses the meeting in considering to select auditors with high quality from big audit firms to serve the firm as monitoring function.

Moreover, when auditors from big audit firms holds more meetings with the committee, the audit committee may convince them to effectively perform to prevent executives eliminating the benefits of the shareholders. This result is consistent with the perspective of some prior studies such as Azam et al. (2010), Abbott et al. (2000), and Beasley et al. (2000). All in all, the results indicate that good board structures and good audit committee structures, lead the firms in the Thai stock market to use auditors with higher quality from big audit firms as monitoring tool. This signals better monitoring function in overseeing executives' decision-making and activities, and this should lead to best protection of owners' interests.

## Conclusion

The main objective of this study is to investigate whether board structures and audit committee's characteristics, has association with use of auditors from big audit firms as monitoring tool of the companies in the Thai stock market. Using the logistic estimator for data of 5,110 firm-years during 2001 to 2015, the results are revealed that board independence, and audit committee meeting frequency have significant positive impact on use of big audit firms, while dual role of leadership on the board is found as having significant negative effect on use of auditors from big audit firms as monitoring instrument of Thai firms.

There are at least two contributions which can be drawn from this study.

First, it extends literature in the area of corporate governance in Thailand, specifically, the association between corporate governance and selecting auditors as monitoring tool.

Second, this evidence should signal the participants in the stock market to realise that when firms have good board and audit committee structures, they usually appoint auditors with higher quality to perform duty in monitoring behavior of executives; so with good governance mechanisms, the benefits of owners and related parties should be protected appropriately.

Therefore, when the investors in the Thai stock market consider to invest in listed firms, using big audit firm of the companies should be taken in to an account as one particular investment factor. However, there are some limitations of this study; for example, it introduces only big audit firm as a proxy of effective monitoring tool, but it can be defined in several ways such as existence of internal auditors and other specialists, so future research should include other variables to represent effective monitoring tool.

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# Forex Traders: Elements that Influence Trading Decisions

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## Abstract

This research was conducted to study the main elements that affect FOREX trader's trading decisions. The independent variables in this case were inflation rate, political climate, tools and technical analysis knowledge such as Fibonacci and Elliot wave the dependent variable used was the FOREX trading decision; Semi-structured interviews of experienced FOREX market traders were used for data collection. Hypothesis testing showed some differences in tools used by respondents for technical analysis in the FOREX market. Various tool differences featured in the hypothesis were Fibonacci and Elliot wave and the Meta Trader 4 platform and other applications. Core factors influencing FOREX market trading were inflation rate, political climate actions, technical analysis tools such as Fibonacci and Elliot Wave and the Meta Trader 4 platform. These were applied to study respondents' FOREX market knowledge. Evidence of the study showed that most respondents used hedging tools or technical analysis to study market conditions before making decisions.

**Keywords:** Political climate, Inflation rate, Fibonacci and Elliot wave analysis, Meta Trader 4 software, Technical analysis

## Introduction

### 1.1 FOREX Market and Trading

Currency trading has been around since ancient Egyptian times. During this time, the market was very primitive and no advanced tools were available for trading. The first currency coins were used by pharaohs, while the first paper notes were introduced by the Babylonians. The Roman coin Aureus was later introduced and used, followed by the denarius. Both coins had a worldwide effect making them the first global foreign currency coins (Lindsay, n. d). Lindsay further argues that the first online currency trading was introduced into FOREX history in 1994, largely influencing Euro currency development. This introduced a major new contender into the market which controlled the USD in the FOREX history. Modern FOREX trading online began in 1973 (Lindsay, n. d.). It is an exciting, fast-paced, currency trading market, 24-hour billion-dollar trades, global geopolitical tensions and macroeconomic forces. Today the FOREX market is the largest money exchange market in the world with trading transactions exceeding four million US dollars per day. FOREX market value is about three times the total world stock exchange markets. Significant profits can materialize, but can also vanish in a matter of seconds. A trader needs to understand basic forces of supply and demand that drive currency prices. Traders also need to understand global factors influencing these basic forces, how to predict where currencies are going to move, personality of each individual currency, reactions to economic announcements and many other news.



These factors help traders better understand the aspects of FOREX and international online trading (Jagerson & Wade, 2011). A number of myths are associated with FOREX and international online trading (Alex & Walter, 2012). The first is that successful trading is based on indicators such as EMA, MACD, RSI, Volume, ADX, etc. The second myth is that successful trading must be complex. The last myth is that successful trading depends on the trading system. Personal beliefs and attitude towards risk associated with particular investments are two major predictors of trading success.

The Foreign Exchange Market or international currency exchange market, abbreviated as FOREX or FX is a platform that allows people worldwide to trade online using order placed through a broker, agency or dealer. Money comes through an electronic portfolio to the owner of the online account. Before going into FOREX trading, it helps to do research and analyze market, price, signal and implied risks. This helps traders understand how the market works. The trader can trade a particular currency in FOREX Market through a broker or a dealer with buy/sell orders showing the pair of currencies depending on country.

Under normal circumstances, exchange currency rates are based on the economic conditions of different countries. FOREX is different from the stock exchange in New York in that it doesn't have a center, main office or headquarters as the stock market, but are counters in some areas of agencies allowing customers to open online or electronic accounts. The FOREX is categorized under the Over the Counter (OTC) or Interbank, with real-time banking information flowing online 24 hours.

Currencies abbreviations and FOREX market trading times are shown in Table 1.1 and Table 1.2, respectively. In order to trade in FOREX or open a trading account, the potential trader needs a computer, tablet, smartphone or device connected to the internet. The device should have the Meta Trader 4 application running. As well, the trader needs to find a broker or dealer who will provide the necessary portfolio for investing.

FOREX is a spot market service allowing anyone with an internet connection to trade any currency in the FOREX market real-time (24 hours), Monday through Friday.

There are no commissions, clearing fees, exchange fees or taxes with a FOREX trade and no middlemen. While the silver market has limited trade lots of 5,000 oz., the FOREX market has no lot limit. An account can be opened with 250 USD or more in a portfolio. Speculation in the FOREX market is not possible as in the stock exchange, since calculating money flows in different currencies is difficult. Leverage in the FOREX market can be margin or credit that is paid to the broker and that allows the trader to trade more money they have. For example, a broker may give leverage of 200:1 meaning that with 50 USD, the trader can trade or buy/sell up to 10,000 USD.

Table 1.1 Currencies abbreviation

Abbreviation	Country	Currency	Called
USD	United States	Dollar	Buck
EUR	Eurozone	Euro	Fiber
JPY	Japan	Yen	Yen
GBP	Great Britain	Pound	Cable
CHF	Switzerland	Franc	Swissy
CAD	Canada	Dollar	Loonie
AUD	Australia	Dollar	Aussie
NZD	New Zealand	Dollar	Kiwi
CNY	China	Yuan	Yuan

Table 1.2 FOREX Market Trading Time

Market Status	New York Time	Universal Time	All Market Closed
Tokyo Opened	7:00 PM	0:00	SAT-SUN
Tokyo Closed	4:00 AM	9:00	SAT-SUN
London Opened	3:00 AM	8:00	SAT-SUN
London Closed	12:00 PM	17:00	SAT-SUN
New York Opened	8:00 AM	13:00	SAT-SUN
New York Closed	5:00 PM	22:00	SAT-SUN

### 1.2 Statement of the problem

The tourism industry has substantially boosted FOREX trading in Thailand (Chancharat, 2011). It has also come with its own share of challenges. FOREX trading brings hotel and holiday bookings in foreign currency. Currency strength is a factor that will determine how much of FOREX earnings will be brought into the economy. Another condition is the ability to adapt Information Technology for better FOREX trading, since traders require foreign currency whenever they are travelling outside their home countries.

Noticeable investment risks such as currency fluctuations may work against the home country currency causing losses. Exchange rates can be very volatile and move rapidly within a brief period of time. FOREX markets are open 24 hours a day, so time and devotion is needed in tracking down investment (Blue Capital Markets Limited, 2015). Therefore, this research is aimed at examining elements that affect trading decisions made by traders such as inflation, political climate, financial institutions and the use of knowledge in applications, indicators and technical analysis tools.

### 1.3 Objectives

1. To study elements that impact FOREX trading decisions.
2. To investigate the knowledge and the use of technical analytical tools, indicators among traders in FOREX market.
3. To investigate use of information among traders in FOREX market.

### 1.4 Significance of the study

The findings from this research were used to advise management of FOREX traders and aspiring traders on the major aspects involved in FOREX trading in Thailand and to help them to understand their role in boosting FOREX trading among potential traders. It is important for anyone interested in FOREX trading to first carry out a FOREX research before embarking on it. These research findings were used to understand the workings and intricacies of the FOREX market in the quest by traders to maximize profits and reduce risks of losses.

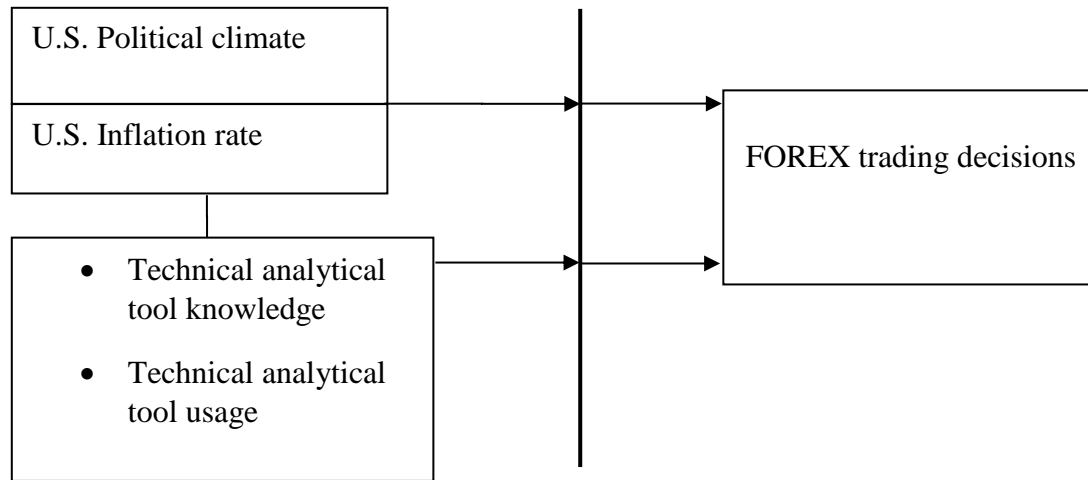
### 1.5 Scope and the Limitation of the study

Regulation of the FOREX market is difficult as FOREX trading involves international markets. It is largely unregulated with no centralized exchange guaranteeing risk free execution of trades. The scope of this study was to investigate the relationship between the FOREX and international online trading. To carry out this research a number of variables were studied: inflation rate, U.S. political climate influence and other financial institutions actions, the use of information, applications, indicators and technical analytical tools. Respondents were traders in Thailand and interviewed through related questions.

## 1.6 Conceptual Framework

### Independent Variables

### Dependent Variable



## 1.7 Research Hypotheses

H1: U.S. Political climate affects FOREX trading decisions.

H2: U.S. Inflation rate affects FOREX trading decisions.

H3: Knowledge and usage of technical analytical tools influence FOREX trading decisions.

## Literature Review

### 2.1 Theoretical Literature Review

FOREX is the world's largest, highest liquidity financial market; it is also referred to as foreign exchange (Cabural, 2013). It is occupied by bank dealers and transnational companies. FOREX can be simply defined as the relative value of one currency against another different currency. What elements affect FOREX trading? The researcher focused on theories, concepts and related researches to apply to the conceptual framework such as inflation rate, political climate, Fibonacci and Elliot wave analysis and Meta Trader 4 software.

There are three kinds of FOREX transactions (Cabural, 2013); Spot, Forward and Swap. Spot transactions, which takes up almost a third of all FOREX market transactions, is where an exchange rate is agreed upon by two parties to trade currencies. With a Forward transaction, money does not change hands until some date that is agreed upon in future by agreement of both buyer and seller regardless of what market rates are at that time. The Swap is the most common forward transaction and involves the simultaneous purchase and sale of a given amount of foreign exchange for two different value dates. Figure 2.1 illustrates various types of transactions in the FOREX market and their global trading rate percentages.

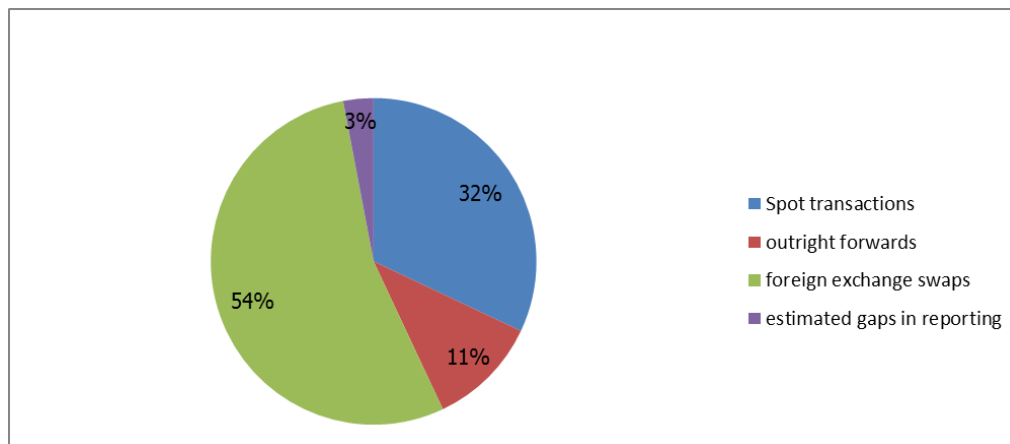


Figure 2.1. Types of transactions chart

## 2.2 Inflation Rate

Inflation involves continuous rising of prices or continuous falling value of money (Das, 1993). There are also additional conditions such as increase in cost, unemployment and real output. When there is excess demand for commodity, an increase in prices and wages occurs. On the other hand, suppressed inflation takes place when governments employ control measures preventing goods prices and wages from rising, thus excess demand is not reduced, but suppressed. Inflation is generally caused by an increase in money supply rising faster than economic growth rate. Value of money is determined by two things: amount of currency in circulation and public perception of the value of that particular money (Pat, 2011). This can lead to a fall in the value of money because the public perception on the value underlying currency changes, causing devaluation of the currency and subsequent rise of prices. The currency will now be worth less than before. The national debt is another factor that effects inflation rate on FOREX trading (Pat, 2011).

High national debt for a country can drive inflation to higher levels over time. As national debt rises governments can counter this through raising taxes or printing more money to pay off debt. Printing of more money means excess money in circulation which will eventually lead to higher inflation rate and affect the value of the currency in the long run. Once currency value deteriorates FOREX trading will be also affected. Exposure to foreign markets in any country can make inflation worse (Pat, 2011). In U.S., economy functions on the basis of the value of its currency- the dollar. When the FOREX exchange rate suffers, the dollar becomes less valuable in comparison to other foreign currency; foreign commodities and other goods become more expensive to consumers. On the other hand this makes the U.S goods, services and exports cheaper for consumers in other outside countries.

## 2.3 Political Climate

Political environment refers to government, state, institutions, public, private stakeholders and legislations that operate and in one way or the other influence the system (Gulbinat et al., 2009). The stability of the political climate affects other social amenities such as health, education, and infrastructure as well as commodity prices, currencies and other assets. Political environment also includes people's views, beliefs and attitudes on what governments should to do to improve livelihoods and relationships with its people. Political instability which cause wars is a major concern for FOREX trading market globally (Chan, 2013).

Major elements affecting the FOREX market like elections, regime change or political majority in a given country may supporting some policies or favor capital incentives and lower interest rates which devalues the currency of that particular country. Coup d'état could experience a complete devaluation or even revaluation of a currency. Natural disasters such as high level magnitude earthquakes, tornados and floods cause currencies to appreciate. Every country has a government which acts as the captain of the ship called economy and the well-being of its people (Adam, 2014). It is very difficult to establish the connection between the stability of a country and the strength of its currency. Traders will only invest in a country where their return on investment is favored by the policies.

## 2.4 Fibonacci and Elliot wave in technical analysis

Financial markets have the same mathematical base as the natural phenomena and thus the Fibonacci concept can be applied in finance (Kuepper, 2014). When applied in technical analysis, the golden ratio is typically translated in three forms of percentages: - 38.2%, 50% and 61.8%. However, there are more multiples that can used when need arises example- 23.6%, 161.8%, 423% and so on. There are three methods of applying the Fibonacci sequence in finance. They include: - Fibonacci Retracement, Fibonacci Arcs, and Fibonacci Time Zones.

Fibonacci Retracement (Figure 2.2) is a very popular tool based on key numbers that were identified by mathematician Leonardo Fibonacci in the 13th century (Kuepper, 2014). This tool is used in technical analysis whereby a Fibonacci Retracement is created by taking two extreme points- a peak and a trough on a stock chart for instance and dividing vertical distance by major Fibonacci ratios of 23.6%, 38.2%, 50%, 61.8% and 100%.



Figure 2.2. Fibonacci Retracement Movement

The Fibonacci Arc (Figure 2.3) is developed by finding the high and low of the chart (Kuepper, 2014). Three curved lines are then drawn using a compass like movement at points 38.2%, 50% and 61.8% right from the desired point. These lines give an idea of support and resistance levels and areas of range.



Figure 2.3. Fibonacci Arc

Fibonacci Time Zones (Figure 2.4), is a series of vertical lines composed by dividing the chart into various segments comprised of vertical lines with gaps or spaces that are equal to the Fibonacci Sequence (Kuepper, 2014). The sequence is as follows; 1, 1, 2, 3, 5, 8, 13. The lines are an indicator of expectations in major price movement.



Figure 2.4. Fibonacci Time Zones

The Fibonacci methods are useful in estimating areas of support and resistance. The financial markets, FOREX included conform to the rule of golden rule which states that nature relies on innate proportion in-order to maintain balance (Kuepper, 2014).

The second concept in technical analysis is Elliot Wave Theory (Elliot, 2012). Named after Ralph Nelson Elliot and later advanced and expanded by A.J Frost and Robert Prechter. Elliot's concluded that movement of the stock market could be predicted by observing and identifying a pattern of waves having a repetitive behavior. The theory suggests that the market moves upwards in a series of five waves and downwards in a series of three waves. The stock price movements occur in predictable cycles. Elliot concluded that these movements could predict market movement accurately.



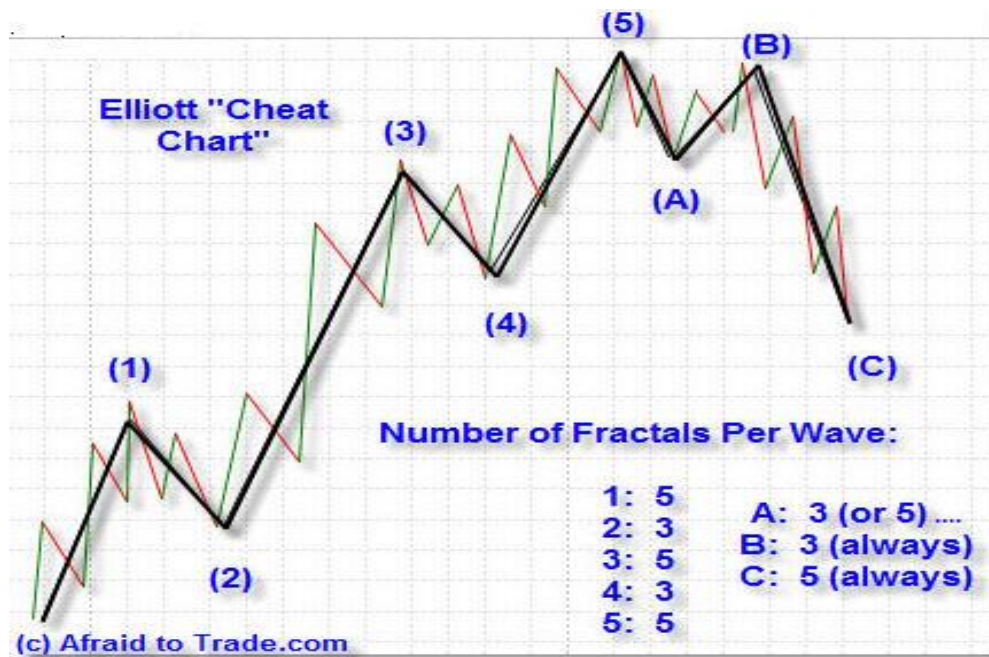


Figure 2.5. Elliot Wave

Elliott wave analysis is a type of technical analysis combining price, time, volume and other information collected from markets to help project the likely direction of future price action. Wave patterns are closely related to market behavior. A failed fifth wave occurs when the fifth leg in an impulse does not get past the preceding third wave extreme point (Poser, 2003). In markets that are going down, it can be explained that a low price reached in the Elliott wave 5 is above the low price achieved by the third wave which is typically falling. Some Elliott wave analysts believe there is no such thing as a failed fifth wave.

## 2.5 Meta Trader 4 platform

Meta Trader 4 is a platform also used in FOREX trading to analyze financial markets. This platform is composed of trading signals, market, and mobile trading aimed at enhancing FOREX users trading experience. Many global traders of all skill levels use this platform for a variety of reasons: flexible trading system, expert advisors, mobile trading applications, technical analysis and algorithmic trading (FOREX Capital Markets, n.d.). Meta Trader is the most famous trading platform among FOREX traders, since it can easily connect the trader from personal computer to the currency market for free. Two versions of this software are available: Meta Trader 4 and Meta Trader 5 abbreviated as MT4 and MT5, respectively.

Meta Trader offers many features and abilities for the FOREX trader (FOREX Capital Markets, n.d.). The trader can access price charts, follow fluctuations in market price and analyze the charts. They can also plot trend lines on charts, locate trade setups and analyze the same charts to understand the market and make predictions. Another feature is the Renko chart indicator, invented by Japanese traders, which considers only price changes. Time and volume are not used. The Renko chart indicator is made up of small boxes with options to change box size. When a special level of price change occurs in the trading pattern, a new box appears. Higher box size means a larger price change is needed to enable appearance of a new box on the chart. When a smaller box size is set, new boxes will appear more quickly. Major features for this platform enable the trader to place orders and set targets and stop losses from occurring by monitoring the market with the required accuracy (Lien, 2009). Platform accuracy is important since it enables market entrance and exit with exact timing.

Within the MT4 platform there is also an option of viewing account information, including account balance, trading history, password information and other access details. The platform is highly secured with encrypted data between trader and server with a 129 bit key and the trader's IP address completely concealed whether using personal computer, laptop, smartphone or tablet. Since FOREX trading is global involving many different currencies there is a need to have flexibility in this kind of platform (Lien, 2009). MT4 supports all major currencies trading as well as trading futures, indexes, equities and commodities. Estimates are that more than 300 brokers use this platform solely or in conjunction with other trading solutions (Binary Tribune, n.d.). Figure 2.6 is an example of MT4 software interface.



Figure 2.6. Meta Trader Software Interface

## 2.6 Related Research

According to King, Osler and Rime (2011), electronic trading has transformed foreign exchange markets over the past few years. The studied also noted how the pace of innovation has accelerated this transformation, as well as foreign market structure, evolution, players in the FOREX market and how they interact at different engagement levels. Buenrostro, Mateo, and Ramirez (2012) studied the most feasible methodology to establishing a successful FOREX firm. They took samples of trades from different groups and identified common risks and mistakes made by participants while trading.. A trading plan tool was also recommended. The tool was created by traders with guidance from experts, but personalized based on the traders own personality to help traders avoid common mistakes and major risks related to one's own confidence zone.

Nassimi, SazmandAsfaranjan, Keshvarsima, and Baradari (2014) studied factors that affect the consumer's intention within the foreign exchange market among the expatriates who live in Kuala Lumpur. The study measured the level of purchase intention with relation to internet usage, infrastructure of website, content availability, trust and internet usage in the FOREX market. Research results indicated that the factors that affect consumer's purchase intentions were content, trust and the infrastructure in the form of the FOREX website. The results from this research could be used by various stakeholders in developing quality service charters and gain more investors and clients' loyalty to the market. The stakeholders include central banks, FOREX market brokers, FOREX Dealers and other financial institutions.

## **Research Methodology**

### **3.1 Research Method**

The qualitative research method was used in this research study with semi-structured interviews allowing the researcher to acknowledge, get better perceptions and understand the emotion of respondents. Countenance, motion, movement, eyes contact, etc. could also be observed for a broader message to clarify the research data.

### **3.2 Research Design**

The aim of this research was to investigate how elements of inflation rate, political climate, Fibonacci and Elliot wave technical analysis and Meta Trader 4 software influence decision making in the FOREX market.

### **3.3 Research Instrument**

Semi-structured interviews from respondents engaged in FOREX trading as well as secondary sources of information were used to enable the most accurate, reliable information possible and enable establishment of recommendations. Seven experienced FOREX traders in Thailand were interviewed to gather and compare data.

#### **Semi-structured Interviews**

Cohen and Crabtree (2006), described semi-structured interviews as follows:

##### *Characteristics of Semi-structured Interviews*

The interviewer follows guidelines. However, the interviewer is able to adjust conversations and questions to be flexible from the guidelines when required and appropriated. The interviewer uses and develops questions and topics to be covered during the interview. This method is best used when there will be no more opportunity to interview subjects and when several interviewers will be collecting data.

The semi-structured interview questions consisted of two parts:

Part 1: General information of the respondent, the age, education level, income bracket, nationality, gender and working experience in years consisting of tape recorded, close-ended questions.

Part 2: Investigated various elements such as inflation rate, political climate, technical analysis tools (Fibonacci and Elliot wave) and trading applications also consisted of recorded, close-ended questions. Content from literature and theoretical framework as well as objectives of this study were transformed into questions. The objectives of the study were translated into content for the interview questions. Interview questions were structured to measure the extent of knowledge people had on elements that affect decisions in FOREX trading.

### **3.4 Data Collection**

#### **3.4.1 Primary data**

Primary data was collected from semi-structured interviews. Only responses obtained via interviews, focus groups and additional secondary sources were used to test the hypothesis. All responses were recorded. Seven subjects, representing experienced FOREX traders were interviewed to gather data to support or reject the hypothesis testing.

#### **3.4.2 Secondary data**

Secondary data was collected from websites, google scholar, articles, e-journals, academic articles, e-book, e-business articles and online news written by experienced researchers, traders, and academics.

### **3.5 Data Analysis**

Data analysis was conducted through the use of the semi-structured interviews and secondary data. To achieve the objective of the qualitative research, five stages of qualitative analysis (Lacey & Luff, 2009) were used to ensure rigor, reliability and validity as follows.

Triangulation was used to demonstrate rigor by gathering and analyzing data from more than one source to gain more perspective on the circumstance you are investigating (Lacey & Luff, 2009). Reliability refers to a research instrument that concerns the extent to which the instrument yields the same results on repeated trials, while validity, according to (Mason & Bramble, 1989), refer to the degree to which a test measures what it is supposed to measure.

The five stages of qualitative analysis used are as follows:

#### **Stage 1: Transcription**

The interviewer collected data by tape recording, handwritten notes and video recording and then transcribing the words verbatim.

#### **Stage 2: Organizing data**

After transcription, data was organized into sections by date, code or context. Data was also backed up to prevent loss.

#### **Stage 3: Familiarization**

Following Stage 1 and 2, it was necessary to begin familiarization with the handwritten notes and listen to the tape recordings as much as possible to become familiar with the data.

#### **Stage 4: Coding**

Data that was not related to the core data was then cut and coded. The coding in this research will be 'Affect' because interviewees may respond with difference ideas to the same question. Codes were divided into sub themes or categories with decoding being done as required.

### Stage 5: Themes

After coding was categorized into sub themes, the researcher began to recognize concept and proper themes of the study.

The data analysis was carried out in two stages:

Stage 1: Respondent's demographic information was compiled from the interview; age, occupation, income bracket and level of education among others. Seven FOREX traders were asked four questions in two parts which related to the objectives and hypotheses. The results from semi-structured interviews were analyzed by using content analysis and the five stages of qualitative analysis (Lacey and Luff, 2009).

Stage 2: Secondary data from websites, Google scholar, academic articles, e-journals, e-books, e-business news were used to analyze the objectives and hypotheses. Secondary data was use to do factor analysis to ensure there is a defined pattern in the relationship. Factor analysis also identified various technical analysis tools respondents were aware of in FOREX trading.

### 3.6 Hypotheses Testing

1. Stated hypothesis was derived from research objectives.
2. A sample was obtained and relevant variables measured.
3. Interview results from experienced FOREX traders and secondary data were then compared to the value either stated or implied in the hypothesis. If the data was found to be consistent with the hypothesis, then the hypothesis was supported; if it is not consistent, then the hypothesis is rejected.

## Research Findings

### 4.1 Describing Demographic information of respondents.

Respondents were asked for demographic information such as nationality, gender, age, education, length of working experience, level in occupation and average income per month.

Table 4.1. General information of respondents

Respondents	Nationality	Gender	Age	Education Level	Experience Years	Income THB
1	Thai	Male	38	Master	10	>50,000
2	Thai	Male	37	Bachelor	11	>80,000
3	Thai	Female	61	Bachelor	>30	>50,000
4	Thai	Male	28	Bachelor	5	>50,000
5	Thai	Male	34	Master	7	>100,000
6	Thai	Female	37	Bachelor	14	>50,000
7	Thai	Male	45	Bachelor	21	>100,000

Respondents were asked to explain different actions and how they deal with these action from financial institutions regarding political climate, inflation rate, technical analysis tools and use of applications that elements of FOREX trading decisions.

## **4.2 Finding of the research study from respondents**

The research questions concentrated on different elements and actions that affect liquidity, price, and FOREX trading decisions and the stock market. Differences of political actions, inflation rate, financial institutions actions affect price, liquidity and buy/sell volume in the FOREX market were examined by the researcher. Fundamental knowledge and use of trading applications, technical analysis tools, indicators, hedging tools, and economic news analysis affect trading decisions were also examined.

### **4.2.1 Interview question 1:**

Do you think political climate actions affect trading decisions making in the FOREX market? How?

Respondents indicated that various political actions in Thailand were elements that affected price, liquidity and buy/sell volume in the Stock Exchange of Thailand (SET). Traders become aware of serious political situations and are hesitant to trade when the nation is in political turmoil. Most respondents mentioned that local political action will not or will have less affect on price, liquidity and buy/sell volume on the market. Because of its large size, the FOREX market, local political situations from insignificant countries will not influence trading considerations of traders.

### **Hypothesis: H1 Testing**

H1: U.S. Political climate affects trading decisions.

Research from FXCM Market Insights (2016) explained that “Equities, futures and FOREX markets are all interested in the relative strength of the United States dollar, and ultimately that strength is based upon the economic health of the nation as a whole. The U.S. presidential election has a great bearing on the direction of the domestic economy, and the potential influence on the USD itself can be substantial.” Stewart (n. d.) expressed that another possible effect to support the hypothesis was the Allies a country can have. FOREX traders who have invested in a particular currency in the market, indicated that they may look to the allies from a different country to secure other investments, since allies are considered to be better partners in trade.





Figure 4.1. EURUSD Chart in December 2016

Figure 4.1 shows that America's currency lost ground against the Euro according to Economist (2016), a day after Donald Trump won the U.S election. There was also a decline in the American stock market (Economist, 2016). Traders faced uncertainty after some adverse policy proposals were suggested by Trump on trade and foreign policy. International investor's confidence kept fading due to uncertainty of American economic policy. BBC Business News (2016) mentioned that Asian stocks fell sharply right after the Trump victory. All the major trading regions in Asia closed lower with money flowing into safe haven stocks, gold and stock currencies, including the yen. Margins showed the Japanese Nikkei 225 dropped by 5.4%, mainly due to the reason that most traders had expected a Clinton win.



Figure 4.2. US Dollar – Mexican Peso Chart (BBC Business News, 2016)

The impact of a Trump presidency on the Mexican economy also saw its currency fall more than 13% against the dollar, its lowest level in two decades, as shown in Figure 4.2. Responses from Interview question1 and secondary data found this hypothesis to be **accepted**.

#### 4.2.2 Interview question 2:

Does inflation influence FOREX trading decisions? How? Do you use inflation data to support trading decisions? Why?

Respondents explained that inflation erodes the real value of money. Wealth is then redistributed from those who own monetary assets to those who owe money. Inflation reduced the real value of people's debts used to finance the holding of assets, but increased asset prices. Inflation rate and consumer price index are deemed to be major economic indicators. The index determines the level of inflation in a particular economy by calculating the value of household goods and comparing that value to the previous period.

A rise in inflation is not seen as an indicator that there is surplus money in the economy by FOREX traders. However, in Thailand, traders do not use inflation to trade in the FOREX market as they considered only the inflation rate in Thailand and pay attention only to consumer products, cost of living and the liquidity of assets such as land and cash. Most respondents felt that inflation might not affect the FOREX market due to its size meaning that inflation may have more impact. From this interview question, the researcher determine that inflation is a less effective element in influencing trading decisions. No respondents used inflation information to analyze and support their trading decisions.

### **Hypothesis: H2 Testing**

H2: U.S. inflation rate affects trading decisions.

Most respondents disagreed that inflation rate affected their trading decisions in the FOREX market as inflation was only part of national economics. Respondents felt inflation was too complicated and time consuming to calculate. They may also use other, more effective indicators to support their trading decisions, therefore this hypothesis was **rejected**.

**4.2.3 Interview question 3:** Do you use hedging, technical analysis tools, applications and news analysis to support your trading decisions in the FOREX market?

If you use technical analysis tools, which ones? How?

Respondents used the number of contracts or shares the traded during a particular time frame in the FOREX market, known as volume based results, since volume has significant effects on FOREX trading. High volume of trade indicates an active trading market, while low volume indicates less active trading. Respondents' knowledge of this tool of analysis enabled the conclusion that the use of Fibonacci retracement was used considerably by the respondents. The application used to trade most often by traders is Meta Trader. Interview information indicates traders get help from their brokers who in turn use the Meta Trader software. Analyzing respondent's views and comparing them with secondary sources, it can be said that bid and ask volume relates well with the hypothesis of this study. Respondent's answers indicated the use of graphs helped in analyzing the FOREX market.

### **Hypothesis: H3 Testing**

H3: Knowledge and usage of technical analytical tools influenced trading decision of traders in the FOREX market. Responses showed that most traders used hedging, technical analysis, applications and indicators to support their trading decisions. Knowledge of these tools and applications is very significant. To be a competent trader, the use of applications such as Meta Trader, tools and indicators are factors that help traders make prudent decisions to trade currencies. Literature reviews sources also supported this hypothesis therefore showing that it can be **accepted**.

## Summary, Conclusion, And Recommendations

The purpose of this research was to investigate elements that influence affecting trading decisions by traders in the FOREX market. To study elements that might influence inflation rate and political climate and investigate the use of Fibonacci and Elliot wave technical analysis and Meta Trader 4 software and its effect on FOREX trading decision making. This chapter presents the summary of research findings, discussion of study results, findings and suggestions for further research.

### Conclusion

Overall respondents perceived the FOREX market as another form of trade that can be understood with time. The hypothesis test showed some significant difference in the respondent's views on FOREX market trading knowledge and technical analysis tools like Fibonacci and Elliot wave. From this study, core factors that might impact trading decisions of traders in FOREX market showed that:

Inflation rate factor in financial markets is important since it affects currencies and also the price of most products. However, most respondents argued that inflation will not impact their trading decisions in FOREX market.

Political climate affects their trading decision in FOREX market since they will consider its impact from the news when creating an order for trading.

The knowledge of applications, indicators, technical analysis tools also affect trading decision of traders. Results indicated the respondents used technical analysis tools, applications and indicators to support their trading decision in the FOREX market, mostly, Fibonacci, MACD, Meta Trader, Meta Stock.

### Discussion

This study endeavored to establish the main factors for FOREX trading with focus on variables that will affect trading decisions such as inflation rate, political climate, technical analysis tools, applications and indicators. The study also produced meaningful recommendations on fundamental analysis of the FOREX market among traders. For example, knowing the reaction of a currency due to this research study before it is released requires fundamental analysis knowledge. This also helps to know what the market is expecting to happen by analyzing various FOREX market processes which can be useful to a currency trader when establishing or liquidating a position.

### Limitations

In this study the FOREX traders in Thailand were the interview focus. Focus on other countries was excluded. The current study has been examined in detail and a follow-up of the approaches have been involved.

### Recommendations

This is a study of FOREX market trading decision making in Thailand. In the future, FOREX traders in other different countries could be studied. In addition more specific tools will be studied in FOREX trading. This study focused on the technical analysis and in the

future, more fundamental analysis could be investigated. Analysts could be interviewed to find out how currency reacts to macro-economic events and central bank monetary policies in different countries apart from Thailand.

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# CSR and Women Empowerment: A Comparative Study of Women in the Mining Community in Thailand and Lao PDR

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## Abstract

Mining industry has considerable potential to help reduce poverty and accelerate human development, through the promotion of gender equity, by increasing government and community revenues and generating employment among women in the community. Most mining multinational corporations (MNCs) exercise their political economy power through their corporate social responsibility (CSR) programs. Most CSR activities by mining MNCs focus on improving economic status and conditions of the local community. Most mining MNCs, however, have been striving to adopt business ideologies and developmental practices that promote equity among men and women.

However, it is reported that women in the mining industry still struggle to be at the similar level to men economically and socially. In this paper, we explore the impacts of CSR activities by mining industry in Lao PDR and Thailand. Findings from this study confirm that Thai women remain skeptical about roles and gender issues in the mining industry. A comparative aspect between Thailand and Lao PDR shows that women in the mining community aspire for equity among people of all backgrounds (gender, education, age, and location) to work in this industry. Thai women may perceive employment opportunities as a mean to re-migrate to live with family. They also relate issues on economic empowerment from mining industry to political participation by women in Thailand.

**Keywords:** CSR; Responsibility; International Business; Mining

## Introduction

Mining industry has considerable potential to help reduce poverty and accelerate human development, through the promotion of gender equity, by increasing government and community revenues and generating employment among women in the community (Pimpa, 2017). Management of mining impacts in developing countries, however, can be complex and challenging for all stakeholders. Extraction of natural resources such as mining is limited within a particular geographical area. Often its activities are conducted in or near communities and have direct or indirect impacts on community resources, capabilities and well-being, thus leading to a state of poverty, violent behavior, and resentment by communities towards businesses, and other forms of human deprivation such as water and air pollution, land access, farming and toxicity. Previous studies (i.e. Jamali and Mirshak, 2007) also confirm that several factors can be attributed to gender disengagement practices among stakeholders in mining industry such as mining multinational corporations (MNCs), local authorities, community, NGOs and local government agencies. The failure to promote engagement among these



stakeholders, and existing unstable and weak national institutions, leads to gender-based disadvantages (Tokoro, 2007). Whilst there is evidence of increasing effective and sophistication developmental activities on gender equity by mining MNCs, there is no clear understanding on various approaches adopted by mining MNCs. Due to their significant economic and social roles, we need to understand how mining MNCs promote gender equity, and integrate women into their operations. More importantly, factors promoting women in international business organisations (such as mining MNCs) must be comprehended in order to support long-term strategies to empower and promote women in this male-dominated industry.

As gender equity in international business is a salient issue, it has been rather difficult for mining MNCs to state unawareness of their contribution in this area (Calvano, 2008). This, however, has not led to constraints on mining MNCs to behave according to norms that would be conducive to mitigate this important issue in host countries such as Lao PDR and Thailand. Despite ongoing 'boom' conditions in the international mining industry, women remain substantially and unevenly under-represented in the sector, as is the case in other resource-dependent countries. Discrimination of women in the workplace and wider community means they often are grossly under-represented in this new economic activity. It is important to elucidate factors underlying this condition, in order to enhance gender inclusiveness and, ultimately, community economic development. Although the Governments of Lao PDR and Thailand place a high priority on gender equity and reducing poverty, disproportionately women from both countries still struggle to overcome poverty, and gain equitable social, political and economic participation. In both countries, where the concept of gender equality remains debatable, there is evidence to show that women bear the greatest responsibility in the rural economy and that empowering rural women economically is key to unlocking rural development.

### **Why Women and Mining?**

For women in particular, mining industry can provide opportunities for a better life, including increased employment opportunities, access to revenues, and expanded investment in the local community (The World Bank, 2013). Women-led businesses can flourish in the extractives supply chain. Working with and investing in women also makes good business sense - for example, many companies are recruiting women to drive trucks and operate machinery, as they have often found women employees to have an impressive safety record and reduced maintenance of equipment. Literature in this area also show that when women engage with/in mining industry where they have access to employment, or are empowered regarding household finances, they are more likely to invest in education, health, and nutrition for their families. Where women have decreased access to employment, and to cash, families suffer (The World Bank, 2013).

More importantly, opening job opportunities to women can increase productivity and reduce costs. Women are often more reliable, follow rules, obey health and safety regulations, and can be more reliable employees (The IFC, 2013). It is important to understand the need to significantly alter workplace policy and practice in order to promote such participation and economic empowerment in mining industry. In many natural resource-rich locations in rural Southeast Asia, development of these resources, especially through mining, is becoming the dominant economic activity and source of employment for men and women. In this regard, discrimination of women in the workplace and wider community means they often are grossly under-represented in this new economic activity. It is important to elucidate factors underlying this condition, in order to enhance gender inclusiveness and, ultimately, community economic development.

The macro-economic case for women's economic development is well-established (e.g. Kabeer and Natali, 2013). The World Bank (2016) has noted that "eliminating barriers that discriminate against women working in certain sectors or occupations could increase labour productivity by as much as 25 per cent". The International Finance Corporation (2013) has gone further, establishing that whereas decent work standards, including gender equity, can promote inclusive growth, their absence may retract growth. The broad question the author seeks to address in this paper is whether mining industry indeed serves its purposes in the host countries (Thailand and Lao PDR), particularly in relation to improving gender equality and the quality of life of women in the mining community.

### **Why Thailand and Lao PDR?**

Thailand and Lao PDR are the key location for this study because of their socio-cultural contrasts and similarities. Lao PDR has long suffered rural poverty that impacts indigenous people or vulnerable groups with little economic opportunity. The majority of Laos' rural environmental poor live in marginal dry land and wet land areas and their numbers are likely to increase in the future with global warming. In Thailand, urban poverty is prevalent and manifested by, for example, sanitation and environmental conditions, the poor economic status of migrant workers, and inadequate housing and infrastructure. In developing countries such as Lao PDR and Thailand, the legitimacy of MNCs has been increasingly questioned in recent years. The rise of MNCs in South East Asia has been evident since the end of the cold war. This has persisted during the era of trade liberalisation in South East Asia. MNCs contribute to both countries by means of a raft of economic and social actions such as job creation, promotion of education and training and human rights (Pimpa, 2013).

Although Lao PDR has made impressive progress in economic growth, with the proportion of poor people falling from 39 per cent of the population in the mid-1990s to 27.6 per cent in 2010, poverty among women remains most common in mountainous regions where the majority of the country's ethnic minority peoples live. In upland areas, the poverty rate is as high as 43 per cent, compared with about 28 per cent in the lowlands (Rural Poverty Portal, 2012). The poorest groups in the lowlands are those who have been resettled from mountain regions (AusAID, 2004). The UNDP confirms the most disadvantaged households among Laotians are those which are located in areas vulnerable to natural disasters; have no livestock; include a large number of dependents; and are headed by women (UNDP, 2008).

According to the United Nations Development Program (UNDP)'s Human Development Report 2010, the Lao People's Democratic Republic is one of the 10 "top movers" in the world in terms of progress on human development over the past 20 years. However, the country remains one of the poorest and least developed in South-East Asia. Although improvement is evident against social indicators, human development is still among the lowest in the region (Thuvachote, 2011). One of the key problems is poverty among ethnic groups in Lao PDR. The concentration of the Lao PDR's ethnic groups in remote and inaccessible upland areas contributes to conditions of chronic poverty among them (Crilley, 2012). The condition of poverty among women in Thailand is different from Lao PDR. Most prominent agencies in Thailand and from the international arena acknowledge poverty is as much a political as it is an economic issue (World Bank, 2005; ADB, 2010).

Prior to the Asian financial crisis in 1997, Thailand made rapid progress in economic development, with the poverty level falling from 33 percent in 1990 to 14.75 percent in 1996 (Vora-Sittha, 2012). In both countries, the Governments focus on different strategies to empower women and girls. Poverty among women in Lao PDR and Thailand remain crucial and need ongoing strategies from various stakeholders. The World Bank (2012) suggests shared prosperity, responsibilities and mutual collaboration are crucial to sustained alleviation

of poverty in the region. One important aspect which is evident in Lao PDR and Thailand (Vora-Sittha, 2012) is MNCs from various sectors must work with local government to empower the poor by allowing it to participate in economic and political processes in order to guarantee legitimate transfer of power to the poor. In this regard MNCs can be key actors in Lao PDR and Thailand because of their significant economic and social contributions to both countries. The impact of mining industry and companies on women in both countries are relevant to modern economic development. Mining companies often operate in areas of developing countries, such as Lao PDR and Thailand, which are characterized by limited governmental presence, a high incidence of poverty, a lack of basic social infrastructure, and other social and political problems (AusAID, 2004).

## Research Methodology

### Locations

#### Thailand: Tab Klor (ทับคล้อ) and Khao Jed Luke (เขาเจ็ดลูก), Pijit, Thailand

Tabklor and Khao Jed Luke are two districts in Pijit province, Thailand. They are located in the West of Pijit. Originally, the key economic activities in this area are rice farming and animal husbandry. Tabklor's original name was Tab Taklor (the place for Ta Klor tree), due to its fertile land and high volumes of Ta Klor tree in this area. This area is home to Chatree goldmine, operating by Akara Resources Pltd. Akara is a subsidiary of Kingsgate Consolidated Limited; an Australian Securities Exchange ("ASX") listed company. The Kingsgate Group held 48.2% of our outstanding share capital as of June 30, 2013.



Figure 1. Tub Klor Area

Chatree, Thailand's first and largest gold mine, is 280km north of Bangkok and consists of 840 hectares. It commenced open cut mining in 2001. Since commissioning of the Chatree Mining Complex in November 2001, and up to June 30, 2013, the mine has produced over 1.3 million Oz of gold and over 5.8 million Oz of silver. In the year ended June 30, 2013, Akara resources produced 133K Oz of gold at a total cash operating cost of US\$767 per Oz after royalty (Akara resources, 2014). Our research team randomly selected nine villages from the mining community in both districts as study site in Thailand. Then, the chief office of the district was contacted to obtain permission to interview villagers who are qualified to participate in this study.

#### Lao PDR: Vilabouly (ວິລະບູລີ)

Vilabouly is a district in Savannakhet province. It is also a host to Sepon mine, the country's first significant foreign mining in 2002. Sepon is an open-pit copper and gold-mining operation in Southern Laos. Lane Xang Minerals Ltd. (LXML) is the registered name of the company that operates the Sepon mine. Lan Xang is the Lao name for the Kingdom of Laos, and means 'one million elephants'. MMG LXML owns 90 per cent of Sepon in partnership with the government of Laos which owns 10 per cent. Sepon gold project commenced production in 2002; its copper operation commenced in 2005.



Figure 2. Vilabouly

In February 2015 the Lao Government acknowledged that Vilabouly District, where the Sepon mine is located, has graduated from the list of 46 poorest districts in the Lao PDR (MMG, 2015). Vilabouly is also home to various ethnic groups such as Bru, Phu Tai, Tai leu etc. The ethnic minority communities within Vilabouly district comprise broadly of Phouthai and Mon-Khmer speaking communities. Interpreters were employed to facilitate the interview with participants who speak Mon-Khmer in this study. From 46 villages in this area, the researcher randomly selected seven villages in Vilabouly district. They include (i) Ban Vangyang, (ii) Namkeep, (iii) Ban Noonsomboon, (iv) Padong, (v) Bounghkam, (vi) Nongkadeang, and (vii) Ban Huay Suan. The researcher then contacted all heads of village to ask for permission to visit the village, and to interview members of the village who work or previously worked with a mining company.

## Data Collection

Ultimately, qualitative samples are drawn to reflect the purpose and aims of the study. The data for this paper tap into extensive rounds of fieldwork undertaken between 2013 and 2016 in two mining communities in Thailand and Lao PDR. In Lao PDR, we selected participants from seven villages. We interviewed 76 participants from seven villages (including workers from mining company, community leaders, family members of the workers, men and women from different ethnic groups). 62 per cent of the participants are women. Interviews were conducted in Lao, Bru and Phu Tai languages. The interviews were supported by our partners in Lao PDR (National University of Laos, Burnett Institute, and MMG LXML). Since the prevailing concept for sample size in qualitative studies is "data saturation," the researcher stopped the interview in Laos when the data is saturated.

In Thailand, we interviewed 43 participants from nine villages located in the mining area in Tubklor and Khao Jed Luke Districts. We selected workers from the mining company,

community leaders, family members of workers from the mining company, and policy makers from the local province. 68 per cent of the participants were women. All interviews were conducted at the participants' respective households and offices. The extensive data collected and the various site visits allowed us to compare, and gain a comprehensive understanding of local gender and business dynamics within communities, the forms of activities taking place, and the plight of stakeholders in mining industry. Data collected from the various sources also allowed for triangulation, or relevant comparisons of different data inputs and points of view, to minimize bias and allow for an objective characterization to emerge.

## Findings

### Gender and Economic Status

The establishment of mining industry in both countries has provided tremendous economic opportunities for women in the local community. Access to resources, such as income and facilities provided by the companies, helps promote roles of women in the local communities. In both countries, traditionally, women may find difficulty in gaining economic benefits through formal employment, due to inequality among men and women in educational and various other social opportunities. Women in Tab Klor and Vilabouly referred to similar terms such as 'low education', 'poverty', 'inability to achieve goals in life' when we asked them to identify their status prior to the establishment of mining industry in their communities. Obviously, most women in this study agree that economic benefits from mining industry are associated to different and, perhaps, better status of women who can work and look after themselves and family.

*"Opportunities to work in the mining sector help us to regain status in the family and community"* (Thai woman, 35 years)

*"I now can support my kids to study at a local vocational school because of the salary I earn from the company."* (Thai woman, 46 years)

In Vilabouly, it comprises members from Laos, Non-Laos and ethnic minorities. While we were working in the field, we observed that the major occupations in Vilabouly include (1) mining-related work, (2) agricultural sector, and (3) small and medium enterprise. Prior to the advent of mining industry in the community, most people work in the farm and forest. Some may continue their work when mining industry was introduced to the community. Some changed their career from agricultural sector into mining. Relationship between mining and women in the community is tied closely.

From the interviews with various members of the Vilabouly community, we learn that Mining industry creates tremendous economic opportunities for women in Vilabouly and those who migrate to work and reside in Vilabouly. Women can engage in various types of work and economic opportunities from mining industry. The obvious economic opportunities for women in Vilabouly include mining-related work, business with mining company, business for workers of the company, and skill building programs by mining company.

*"The company allows me to work in the lab although most of the workers in my department are men."* (Lao woman, 32)

Working for mining company in Vilabouly is perceived as a high-status job for women since it involves with big multinational corporations. Most women who work in mining



industry stated that employment from the company provides not only income but also opportunity to engage in various activities provide by the company. Economic independence from mining is clearly important as an ideology to promote equity. Interestingly, most men who participated in this study also agree that economic opportunities provided by mining industry will have a long-term impact on promoting women as ‘leader’ and ‘action-taker’ in the community and family

Comparing with Lao PDR, women residing in Thabklor and Khao Jed Luke districts (Thailand) have different views on the relationship between economic benefits and gender equality. Traditionally, women in this community work in the rice field or do not work at all. It is the role of men to look after family. The majority of Thai women living in this community do not have opportunity to pursue their formal education after year six at school. This point limits their economic choice in life. Although women show interests in working in mining industry, most of them are limited by lack of educational qualifications, experiences, and skills. Local women addressed the lack of proper education as the key impediment for women to thrive in this industry. Lack of education can be seen as the old Thai way of thinking that family resources should be spent for education for boys, instead of girls. Women also lack opportunities in access to skill development for employment.

*“I suggest company to promote education opportunities for women and girls in the local area.”*  
(Thai woman, 36 years)

*“Vocational training can promote gender equality among men and women. I believe the company should provided some training schemes such as technology or agricultural training to support women.”* (Thai woman, 27 years)

Most mining-related jobs are perceived as ‘male jobs’ in this community. It, therefore, pronounced the role of men as the breadwinner and leader of the community. When we asked Thai women in this community to identify economic opportunities that are related to ‘women’, most of them referred to ability to stay home and look after kids since their family members can work for the company. They also perceive economic benefits from mining company, such as schools, village funds, and corporate social responsibility (CSR) programs, as the key benefits for their children or family, not for women.

## **Gender and Political Status**

Mining industry is renowned as the industry of politics, due to its complex nature and involvement with various stakeholders. The numerous social and environmental issues associated with the mining industry include access to land issues at the exploration and mining stages, environmental pollution, damage to the health of affected communities and the increased mechanisation of the industry, which negatively impacts employment levels (Mitchell, 1999; Cottrell and Rankin, 2000; Hilson and Murck, 2001). In both communities, we witness the involvement of women in political activities and agenda created by mining companies. Political roles of women in the mining communities in both countries are eclectic. Women in Vilabouly community have long been engaging in various political activities through the Women Union. Through this formal political mechanism, the members of Vilabouly’s women union have responsibility for advocating for women’s rights and gender concerns. They also work with various stakeholders, including mining company, on policies, plans and practices of both government and non-government organizations with respect to the needs and status of women in the local area. With economic empowerment activities from the industry, women can participate more in political roles in the community. We started to witness



female village head, female head of the village funds, and women representatives in the village committee.

This point is crucial from socio-political perspective. When business engage in various political activities and the provision of public goods (i.e. healthcare, education) in Lao PDR, it increases women's participation in political policies and actions. More women have been actively engaging in policies such as relocation of the villagers, schools for local children, and CSR programs by mining company.

*"As a woman, I feel the companies provided me with better opportunities to engage in education planning with a primary school."* (Lao woman, 27 years)

We also witness women of diverse groups (ethnic, age, and linguistic backgrounds) participate in political-related activities such as income generation schemes by the local Government and mining company, village funds management for women, and management of women informal activities in the community. In Thailand, a vast majority of women we interviewed still prefer to work in agriculture, stay at home, and look after family. This traditional view of women's role in Thailand remains common in this society. However, some women took active roles in political engagement in the community. We observe that female participation in political affairs related to mining industry is evident. Similar to most mining communities worldwide, environmental degradation has been the major criticism of the industry in Pijit. Although the company has claimed that it has an "outstanding occupational and health record coupled with stringent environmental controls that help underpin the existing operations.", the mine has faced complaints and law suits filed by communities and villager groups in the past, led by female activists, mainly related to claims about the environment and health.

*"I lead a team to fight against the environmental issues created by mining industry in our community. Simply, I do it to protect my family and my children."* (Thai women, 46 years)

Thai women who lead the environmental and health and safety NGOs are local dwellers. They expressed their concerns on low participation among women in the community in political policies by the Government. In fact, all village leaders and heads of the municipal administration (อบต.) in the mining community are male. Women can only play a pivotal, and active, political role in the NGO and/or informal groups.

*"We still feel the limitation for women to engage in the local political actions with the mining community."* (Thai woman, 33 years)

Our team discussed this issue with female villagers regarding this issue. All of them are fully aware of the environmental consequences of the industry and the closure of the mine. They, however, do not see their roles in political participation. Instead, most of them were calling for a speedy resolution for the conflict between the community and mining company, as there are 1100 jobs at the mine which are in jeopardy. Most of them expressed that loss of these jobs would have adverse flow on effects to the local communities. The status of female activists in the community can be ambiguous.

For those who support them, they expressed terms such as 'heroine', 'iron flower', 'strong lady', or 'community leader' to describe these female activists. On the other hands, terms such as 'not knowing their places', 'wannabe', 'try hard', 'money-oriented women', or 'stubborn women' were used to described them by the opponents of NGOs. For those who

disagreed with women's political participations in the community, they criticised female activists for using femininity to bargain for their own benefits (i.e. financial returns from the company, fame, and status in the community).

Interestingly, leading the community and other women in the politics of mining is not of men interests for a number of reasons. Most women addressed that men are 'too busy' with work commitment. Most men and women who work in mining industry also addressed that the issue is sensitive and they do not want to risk their career by involving in the politics of mining. Women who lead the community and advocating social issues also perceive that men are less active than women in advocating equity and societal issues in the community.

## Conclusion

This study confirms that sustainable CSR efforts can be instrumental in obtaining necessary resources or stakeholder support, in particular, when the organization focus on various activities aiming at alleviating poverty in the host countries where stakeholders can be different from place to place. Cultural factors play pivotal roles in Laos and Thailand when it comes to stakeholders' expectations, management of relationships with various regulatory and community stakeholders, and approaches in promoting CSR for poverty alleviation. It is recommended that MNCs fully understand socio-cultural approaches in conducting CSR activities in the host countries. Mining MNCs are in the complicated situation, due to their profit focus. The neo-classical view of MNCs may impede their ethical ground and accountability. Examples from Lao PDR show that dealing with issues such as inequity among people from diverse ethnic backgrounds in the operation of MNCs, or preparing local villagers to be self-reliance when MNCs withdraw their business in the future, requires a strong level of ethical accountability. Similarly, MNCs in Thailand explained (we have no way of knowing what they understand other than from what they tell us) that informal institutions such as religious institutions, farmer groups or women association may expect some long-term contributions from MNCs in their villages. Expectations from stakeholders in the host countries are not uncommon. Having identified CSR issues as global and local in nature, MNCs in this study started from the identification of key issues in the host countries.

As CSR requires long-term collaboration from various stakeholders, MNCs in both countries invested in financial and technical support to build relationships with key local stakeholders, such as local government, community and religious leaders as well as educational and training institutions. This study also confirms that most CSR strategies require time to establish and continue. To understand ways of working with the community in host countries, this study included people from Thai and Laotian communities reflecting upon their needs to the organizations. This study contributes to understanding on relationship between MNC's approaches on poverty alleviation and influence from regulatory and community stakeholders. In fact, we can assume that there is a high degree of interdependence between MNC's competitive environment, policies and actions, as regulatory and community stakeholders can influence public opinion, demands and expectation. Also, they have power to channel valuable resources toward or away from MNCs. Data from MNCs in both sectors in Lao PDR and Thailand conform to a high number of issues from the poverty evaluation framework.

Most MNCs appear only willing to state active commitment if others in their sector do so as well. It might be suggested that MNCs fear that, because of their involvement in poverty alleviation, they might lose out to others that do not have a strong policy (and/or that claim to be active but fail to enforce it). This argument seems to be supported by the exploratory analysis of different sectors. This study also confirms significant roles of some social institutions that affect informal economy and the work of MNCs. Social groups such as the housewives, female farmers, influential families or religious groups in the community occur at least partially

outside a governing body's observation, taxation, and regulation. Some of them control economic and political informal power in the local community.

They also play significant roles in supporting, promoting or demoting the contributions from MNCs in both countries. Therefore, MNCs must understand what roles to play in different circumstances and cultural and managerial contexts.

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# The Evolution of Bilateral Investment Treaty (BIT) between Thailand and Germany: An Overview

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## Abstract

The purpose of this article is to study the overview of the Evolution of Bilateral Investment Treaty (BIT) between Thailand and Germany as regards to the commercial and investment relation. It also discussed topics about the brief main point of investment protection provision of Thailand and Germany BIT, the brief main point of settlement of disputes of Thailand and Germany BIT, some problems on how to renegotiate in new BIT of Thailand and Germany, and solutions to the problem of integration under the concept of UNCTAD and model international agreement on investment for sustainable development by IISD.

**Keywords:** Evolution, Bilateral Investment Treaty, Investment Protection, Settlement Dispute, Thailand, Germany

## Introduction to commercial and investment relation between Thailand and Germany.

For the first time, Siam and German nation had diplomatic relation through the Treaty of Friendship, Commerce and Navigation between the Kingdom of Siam and the Hanseatic Republics (Lübeck, Bremen, Hamburg) in year 1858. Afterwards, Thailand and Germany established diplomatic relations on 7 February 1862 with the signing of the Prussia-Siam Treaty of Amity, Commerce, and Navigation. These historical details established an approximately 150 Years of Diplomatic relationship between Thailand and Germany (Royal Thai Embassy in Germany, 2016). According to German- Thai chamber of commerce report, “there are more than 600 German companies in Thailand as of these days.

The vast majority of them are in the industrial sector, but also several service providing companies have been established. In addition to that, a wide range of different German products is being purchased by the Thai market, due to an excellent distribution structure. The most important export goods from Thailand to Germany are IT machineries, gemstones, rubber products, and textiles.

On the other hand, the most important import goods from Germany are machineries, chemical products, cars, and spare parts for some electronic products” (German-Thai chamber of commerce , 2016). To develop Foreign Direct Investment (FDI) in Thailand, the first modern investment treaty was signed between Germany and Pakistan in 1959 and put into force in 1962 (BIT between Pakistan and Germany 1959). Germany, as an important partner of Thailand, developed a commercial relation through bilateral trade and investment that served as a mechanism to strengthen relationship between the two countries.

As regards to BITs, Thailand has signed an agreement with Germany (the first country with an agreement) in the year 1961 and put it into force in 1965 as a Treaty between The Kingdom of Thailand and The Federal Republic of Germany concerning The Promotion and Reciprocal Protection of Investment done at Bangkok Thailand on 13 December 1961 (In this article, we call 1961 Treaty).

Such agreement is amended, terminated, and replaced by The Treaty between the Kingdom of Thailand and the Federal Republic of Germany concerning the Encouragement and Reciprocal Protection of Investments done at Bangkok on 24 June 2002 (In this article, we call 2002 Treaty) and date of entry into force in 20 October 2004.

## **The Brief Main Point of Investment Protection Provision of Thailand and Germany BIT.**

### ***Relation between 1961 Treaty and 2002 Treaty***

Although the Treaty between The Kingdom of Thailand and The Federal Republic of Germany concerning the promotion and reciprocal protection of investment that was signed in Bangkok Thailand on 13 December 1961 is terminated, it has a relation with the Treaty between the Kingdom of Thailand and the Federal Republic of Germany concerning the encouragement and reciprocal protection of investments done in Bangkok on 24 June 2002. Article 8 of 2002 Treaty (BIT between Thailand and Germany 2002, 2016) states that the Treaty applies to “investments” made before the enforcement of the 2002 Treaty (Walter Bau A.G. v Thailand 2009:109). That statement shall apply to approve investment under 1961 Treaty and it does not mean retroactivity into the enforcement of Treaty.

### ***Investment and Investor***

The 1961 Treaty determines the term of investment as “the investment of capital” and defines investors as “nationals or companies of the other contracting party” (BIT between Thailand and Germany 1961, 2016). Article 8 basically explains that “investment” means about investment of movable and immovable property, shares or interest of company, claim of money, intellectual property right, or business concessions. On the other other hand, investor defines as Thai and German nationality under the applicable law and this means that companies shall be any juristic person as well as any commercial or other company or association with or without legal personality, having its seat in territory of either contracting party and lawfully existing consistent with legal provisions, irrespective of whether the liability of its partners, associates or members is limited or unlimited and whether or not its activities are directed at profit.(BIT between Thailand and Germany 1961, 2016).

In the same way, 2002 Treaty determines clearness of definitions for the term of investment and investors, basically to understand, “investments” comprise to every kind of asset in particular, though not exclusively, about movable and immovable property, shares or interest of company, claim of money, intellectual property right, and business concessions. We have suggestions that investment in this Treaty must develop direct investment in territory of both countries and not as a mean for investment in portfolio. Investors, in easy definition mean natural persons considered to be Thai national of its applicable laws in Thailand and consider in respect of Germany within the meaning of its basic law and legal entities, including companies, corporations, business, associations and other organizations, with or without legal personality, which are constituted or otherwise duly organized under the law of that contracting party and have their seat in the territory of that contracting parties. (BIT between Thailand and Germany 2002, 2016)

### ***Observations about some term of investments***

One of the interesting observations about investment in intellectual property under 1961 Treaty and 2002 Treaty through The TRIPS is that Thailand has flexibility to incorporate the



TRIPS standard with Doha Declaration in domestic law in example for the aspect of public health, since the purpose of BIT is to improve investment. If Thailand disputes Germany about drug patent and go to compromise in arbitration, Thailand as a developing country will loss sovereignty to control standard in domestic law in the aspect of public health and the external control as the creation of international regime by dispute settlement function will control over domestic law of Thailand (Sonarajah M. 2010:45) and some negative experience with international investment arbitration in Asian countries (Sonarajah M. 2011:248-249 ) where arbiters have a tendency to extend substantive principles in BIT. (Sonarajah M. 2009:282-283) For the reason of investment and commerce, award of arbiters are being commercially based not to think about principles of international law in sustainable development of investment. (Sonarajah M. 2010:305) Hence, Thailand has disadvantage when it comes to BIT appointments to intellectual property and it is difficult to prove that Thailand does actions for public health under exclusion of National treatment and MFN clause.

### ***Observations about term of investor***

Observation about the term of “companies” in 1961 Treaty and the “legal entities” in 2002 Treaty opened opportunities to enjoy these BITs for investors of the third world countries, as major shareholder, or as a powerful force to control a company and occupy a seat in the territory of that contracting party. For example, Germany Trade and Investment has information that, “anyone can establish a business in Germany irrespective of nationality or place of residence. There is no specific investment legislation when setting up a branch office or a new subsidiary in Germany, nor is a minimum percentage of German shareholdings required for foreign entrepreneurs setting up business in Germany.”( Germany Trade and Invest,2016)

For instance, an American investor played as a major shareholder, who established a company in the territory of Germany under its law, can enjoy the protection of investment under these BITs, same case scenario in *Tokios Tokeles v Ukraine* and *Saluka v Czech Republic*. (Dolzer and Schreuer 2008: 50-51) The next interesting observation in these BITs (both 1961 and 2002 Treaty) is about the investor, who is also a shareholder. In customary international law and in case of *Barcelona Traction*, its exclusion of shareholder rights against a host state about the damage of company is considered as a general principle. (Dolzer and Schreuer 2008: 56-57)

However both BITs of 1961 and 2002 Treaty, the case of *Walter Bau AG and Thailand*, Tribunal had a decision that “Walter Bau AG who is minority shareholder in Don Muang Tollway Co. Limited (“DMT”) has status under the Treaty as an “Investor”. The definition of “investment” includes share in special purpose in infrastructure of company such as DMT in which the claimant (Walter Bau AG) had a minority shareholding- and thus, able to be outvoted by the majority shareholders.

Such arrangement is not unusual as an investment vehicle in BIT situations. The Tribunal considers that the claimant should not fail just because of the type of vehicle used to house its investment which became protected by the 2002 Treaty.” (Walter Bau A.G. v Thailand 2009:137) This means that a shareholder, particularly minority shareholder, is an investor who holds a protection of investment under BITs.



## Standard of Investment protection

### *National Treatment and Most-Favoured-Nation Treatment (MFN. Clauses).*

Bilateral Investment Treaty between Thailand and Germany is a German model treaty; both 1961 and 2002 Treaty combined the National Treatment with MFN. Basically, 1961 Treaty defines in article 1(2) that investment owned by, or under the management of effective control of, nationals or companies of each contracting party shall in the territory of the other contracting party not be treated less favourably by that party than it treats investments of its own nationals or companies or investment of nationals or companies of any third States. (BIT between Thailand and Germany 1961, 2016) The 2002 Treaty makes clear and definite in article 3(1) that neither contracting party shall subject investments in its territory owned or controlled by investors of the other contracting party to treat them less favourable than it accords to investment of its own investors or to investments of investors of any third state. In response to that, 2002 article 3(2) (3) (4) (5) has to apply unequal to public interest for the reason of health or morality, and exclude tax, custom, custom union, economic union and free trade area. (BIT between Thailand and Germany 2002, 2016)

In the Principle of National Treatment in BITs between Thailand and Germany, the investment and investor of both countries shall be applicable in same situations and circumstances without discrimination or differentiation, (Dolzer and Schreuer 2008: 178-183) and can apply with the principle of fair and equitable protection against arbitrary or discriminatory stipulations in BITs too just like the case of *Myer v. Canada*. (Schreuer 2009:190)

MFN clause in BITs between Thailand and Germany has the same meaning as the definition of Schwarzenberger, which Surya P Subedi cited in his book about an MFN clause that consists of an agency formation of equality. It prevents discrimination and establishes equality to opportunities on the highest possible plane: the minimum discrimination and maximum favours conceded to any third State...It is clear that MFN clauses serve as insurance against incompetent draftsmanship and lack of imagination on the part of those who are responsible for the conclusion of international treaties. While the standard of MFN treatment has the effect of putting the services of the shrewdest negotiator of a third country gratuitously at the disposal of one's country, another aspect of the matter is more significant.

As long as a country is content to enjoy treatment of equality to that of most-favoured third country, and that subject matter of the treaty lends itself to such treatment, that use of the MFN standard leads to the constant self-adaptation of such treaties greatly contributes to rationalization of international affairs." (Subedi 2012:67-68) This only means that Thailand and Germany cannot normally discriminate between their investments in BITs. If Thailand grants some country a special favour, it has to do the same for Germany too. In the same way if Germany grants some country a special favour, it has to do the same for Thailand too.

MFN clause shall be applicable with Fair and Equitable principle in fair market value just like the case of *CME v Czech Republic* (Dolzer and Schreuer 2008: 190) which exactly suggested the combination of protection against arbitration or discrimination in BIT.

### *Fair and Equitable (FET.)*

Almost all BITs in the world has the principle of fair and equitable standards and refers to international minimum standard of treatment (Sonarajah M. 2010:204) as a general concept of FET like *Ius aequum* as interpreted by UNCTAD "At this point the development of the FET obligation implied that it is possible to single out certain types of improper and

discreditable state conduct that would constitute to a violation of these standards. Such relevant concepts include:

- (a) Defeating investors' legitimate expectations (in balance with the host State's right to regulate in public interest);
- (b) Denial of justice and due process;
- (c) Manifest arbitrariness in decision-making;
- (d) Discrimination;
- (e) Outright abusive treatment. " ( UNCTAD 2012b: 62 )

Some examples which apply several elements of FET cases exactly were presented in the cases of *Myer v. Canada*, *CMS v. Argentina*, and *Saluka v. Czech Republic*. These are all about protection against arbitration or discrimination. (Schreuer 2009:190-191)

The 1961 Treaty does not have FET in the agreement but the 2002 Treaty has FET in article 2(3), which states "each contracting party shall in territory in any case accord such investments by investors of the other contracting party and their returns shall have fair and equitable treatment and full protection." The effect of Article 8, 2002 which states "this treaty shall also apply to approve investments made prior to its entry into force by investors of either contracting party in the territory of the other party consisting of the letter's laws and regulations", means that investments before its enforcement of 2002 Treaty were protected under FET. The case *Walter Bau AG and Thailand Tribunal* has decision that: "Walter Bau AG as claimant has a right of legitimate expectations in his investment and Thailand could not breach the principle of FET to limit his right of legitimate expectations." (Walter Bau A.G. v Thailand 2009:123) This is like the same case of *Biwater Gauff v. Tanzania*, which decision stated that specific component of FET are protecting the legitimate expectation, good faith, transparency, consistency, and non- discrimination.( *Biwater Gauff v. Tanzania* 2008 : 178-179)

### ***Expropriation***

The article 3 of 1961 Treaty prescribes expropriation as follows:

(1) Investment by nationals or companies of either contracting party shall enjoy the most constant protection and security in the territory of the other contracting party.

(2) Nationals or companies of either contracting party shall not be subjected to expropriation of their investment in territory of the other contracting party except for the public benefit and against just compensation. Such compensation shall be actually realizable, freely transferable, and shall be made without undue delay. Adequate provision shall have been made at or prior to the time of the expropriation for the determination and the giving of such compensation. The legality of any such expropriation and the amount of compensation shall be subjected to review by due process of law.

(3) Nationals or companies of either contracting party, who, owing to war or other armed conflict, revolution or revolt in the territory of the other contracting party suffer the loss of investment situation there, shall be accorded treatment no less favourable by such other contracting party than that party accords to its own nationals or companies, as regards to restitution, indemnification, compensation or other valuable consideration. With respect to the transfer of such payments, each contracting party shall accord to the requests of nationals or companies of other contracting party a treatment no less favourable than what is accorded to comparable requests made by national or companies of any third State.

(4) The provision of Paragraphs 1,2 and 3 above shall likewise apply to returns of investments. (BIT between Thailand and Germany 1961, 2016)

Also, 2002 Treaty expands the clarity of expropriation. Article 4 prescribes that:

(1) Investments by investors of either contracting party shall enjoy full protection and security in territory of the other contracting party.

(2) Investment by investors of either contracting party shall not be expropriated, nationalized or subjected directly or indirectly to any other measure the effects of which would be tantamount to expropriation or nationalization in the territory of the other contracting party except for the public benefits and against compensation. Such compensation shall be equivalent to the value of the expropriated investment immediately before the date on which the actual or threatened expropriation, nationalization or comparable measure has become publicly known. The compensation shall be paid without delay and shall carry interest at the market value rate from the date the payment is due until the date of actual payment; it shall be effectively realizable and freely transferable. Appropriate provision shall be made at or comparable measure for the determination and payment of such compensation. The legality of any expropriation, nationalization or comparable measure, as well as the compensation thereof, shall, at the request of the affected investors, be subject to review by due process of law.

(3) Investors of either contracting party whose investments suffer losses in the territory of other contracting party owing to war or other armed conflict, revolution, a state of national emergency, or revolt, shall be accorded treatment no less favourable by such other contracting party than that which the latter contracting party accords to its own investors as regards to restitution, indemnification, compensation or other valuable consideration. Such payments shall be freely transferable.

(4) Investors of either contracting party shall enjoy most-favoured-nation treatment in the territory of the other contracting party in respect to the matters provided for this Article. (BIT between Thailand and Germany 2002, 2016)

The effects of Article 8 of 2002 Treaty were also observed. This treaty shall also apply to approve investments made prior to its entry into force by investors of either contracting party in the territory of the other contracting party consistent with the latter's laws and regulations. This means that investments before the enforcement of 2002 Treaty have full protection about expropriation under 2002 Treaty.

In order to understand it better, expropriation is like a Hull formula where "it had to be prompted adequate and effective compensation" (Sonarajah M. 2010:414) with due process of law and for the public benefit and against compensation, and investor shall enjoy most-favoured-nation treatment for expropriation.

Forms of expropriation can be defined as direct or indirect: direct expropriation is explained by UNCTAD as "a mandatory legal transfer of the title to the property or its outright physical seizure". Normally, the expropriation benefits the state itself or a state-mandated third party. In cases of direct expropriation, there is an open, deliberate and unequivocal intent, as reflected in a formal law or decree or physical act, to deprive the owner of his or her property through the transfer of title or outright seizure." (UNCTAD 2012a: 6-7) Indirect expropriation is also defined by UNCTAD as "a total or near-total deprivation of an investment but without a formal transfer of title or outright seizure." (UNCTAD 2012a: 7)

Indirect expropriations in 2002 Treaty encompass "creeping expropriation" too. Based on UNCTAD, "creeping expropriation may be defined as the incremental encroachment on one or more of the ownership rights of a foreign investor that eventually destroys (or nearly destroys) the value of his or her investment or deprives him or her of control over the investment.

A series of separate state acts, usually taken within a limited time span, are then regarded as constituent parts of the unified treatment of the investor or investment." UNCTAD 2012a: 11 ) In some case studies, creeping expropriation means as follows:

In *Metalclad Crop.v Mexico case*, it was said that an expropriation occurs where the state's actions have "...the effect of depriving the owner in a whole or significant part of usage or reasonably to have expected economic benefit of property, even if not necessary to the obvious benefit of the host state." (Metalclad Crop.v Mexico 2000 :28)

In *Generation Ukraine v Ukraine case*, the tribunal described creeping expropriation as "a form of indirect expropriation with distinctive temporal quality in a sense that it encapsulates a situation whereby a series of acts attributable to state over a period of time culminate in the expropriatory taking of such property." There does not have to be a formal taking of property or rights." ( General Ukraine v Ukraine 2003:87)

The *Pakerings v Lithuania case* describes creeping expropriation as "the negative effect of government measures on the investor's property rights which do not involve transfer of property but a deprivation of the enjoyment of the property." ( Pakerings v. Lithuania 2007:92)

In case of *Walter Bau AG and Thailand*, tribunal has a decision that "there was no expropriation on the claimant's contractual right as a shareholder in Don Muang Tollway co. Limited (DMT). The Toll way is still operating and will continue to operate for many years to come with DMT as concessionaire. The respondent's argument that "creeping expropriation" only, and not breaches of FET, defined as a series of act is not correct. The tribunal sees no reason why a breach of a FET obligation cannot be a series of cumulative acts and omissions. One of these may not on its own be enough, but taken together, they can constitute a breach of FET obligation. Accordingly, the tribunal considers that there was a breach of FET obligations by the respondent due to the following reasons: (1) The lengthy refusal to raise toll as required by MoA2; (2) Those charges to the road construction network which went well beyond what can be considered as "traffic management." (3) The short-term total closure of Don Muang Airport." (Walter Bau A.G. v Thailand 2009:140)

### ***Umbrella clause***

The 1961 Treaty Article 7 states that "if the legislation of either contracting party or international obligations existing at present or established hereafter between the contracting parties in addition to the present treaty, result in a position entitling investments by nationals or companies of the other contracting party to a treatment more favourable than what is provided for by the present treaty, such position shall not be affected by the present treaty. Each contracting party shall observe any other obligation it may have entered in with regard to investments within its territory by nationals or companies of the other contracting party." (BIT between Thailand and Germany 1961, 2016)

In 2002 Treaty Article 7(2), it stated "each contracting party shall observe any other obligation it has assumed with regard to investments in its territory by investors of the other contracting party." (BIT between Thailand and Germany 2002, 2016)

Underlined statements are umbrella clauses. Surya P. Subedi concludes from legal literatures explained in his book that "umbrella clause", has often been interpreted as proving a blanket protection for foreign investment, including activities under a contract with a foreign investor. Once such activities are regarded as being covered by BIT, then certain contractual undertaking to be governed by domestic law are liable to be elevated to international law obligations or enjoy protection under international law.

In such situation a breach of contractual obligation with a foreign company may become a breach of a BIT, thereby attracting the protection available under international foreign investment law. This blurs the distinction between private and public law disputes." (Subedi 2012:102)

As regards to the case of *Walter Bau AG and Thailand*, 2002 Treaty at Article 10 settlement of disputes between a contracting party and an investor has no limitation as to when the dispute might have arisen because the said article has to read with Article 7(2) “each contracting party shall observe any other obligation it has assumed with regard to investments in its territory by investors of the other contracting party”. Walter Bau AG who is a claimant has a right to investor-state arbitration. (Walter Bau A.G. v Thailand 2009:102) Author has some suggestions that, Case *Walter Bau AG and Thailand* has the element of concept “*Contrats administratif*” in public law of Thailand which has a concept for nation-public interest. This case of *Walter Bau AG and Thailand* shows that Thailand lose on sovereign to manage “state-public service” by concept “*Contrats administratif*”( Act on Establishment of Administrative Court and Administrative Court Procedure, B.E. 2542 of Thailand, Article 3, 2016 ) and the decision of Administrative Court of Thailand may lose importance by BIT.

## **The Brief main point of Settlement of Disputes of Thailand and Germany BIT**

### ***Settlement of Disputes between the Contracting Parties***

The 1961 Treaty pertains only for state-to-state claim in Article 11:

(1) The dispute concerning the interpretation or application of the present treaty should, if possible, be settled by governments of the two contracting parties.

(2) If a dispute cannot thus be settled, it shall upon the request of either contracting party, be submitted to an arbitral tribunal.

(3) Such arbitral tribunal shall be constituted for each individual case. Each contracting party shall appoint one member and these two members shall agree upon a national of a third state as their chairman to be appointed by the governments of the two contracting parties. Such members shall be appointed within two months, and such chairman within three months from the date on which either contracting party has informed the other contracting party that it want to submit the dispute to an arbitral tribunal.

(4) If the periods specified in paragraph 3 above not been observed, either contracting party may, in the absence of any other relevant arrangement, invite the president of the International Court of Justice to make the necessary appointments. If the President is a national of either contracting party or if he is otherwise prevented from discharging the said function, the Vice- President should make the necessary appointments. If the Vice- President is a national of either contracting party or if he, too, is prevented from discharging the said function, the member of the International Court of Justice next in seniority who is not a national of either contracting party should make the necessary appointments.

(5) The arbitral tribunal shall reach its decisions by majority of votes. Such decisions shall be binding. Each contracting party shall bear the cost of its own member and of its counsel in the arbitral proceedings: the cost of the chairman and remaining costs shall be borne in equal part by both contracting parties. The arbitral tribunal may make a different regulation concerning costs. In all other respects, the arbitral tribunal shall determine its own procedure.” (BIT between Thailand and Germany 1961, 2016)

In 2002 Treaty, Article 9, (1) Dispute between contracting parties concerning the interpretation or application of this treaty should as far as possible be settled by the governments of the two contracting parties.

(2) If a dispute cannot be settled, it shall upon the request of either contracting party be submitted to an arbitral tribunal.

(3) Such arbitral tribunal shall be constituted by ad hoc. Each contracting party shall appoint one member, and these two members shall agree upon a national of a third state as



their chairman to be appointed by governments of the two contracting parties. Such members shall be appointed within two months, and such chairman within three months from the date on which either contracting party has informed the other contracting party that it intends to submit the dispute to an arbitral tribunal.

(4) If such appointments have not been made within the period specified in paragraph 3 above, either contracting party may, in the absence of any other arrangement, invite the President of the International Court of Justice to make the necessary appointments. If the President is a national of either contracting party or if he is otherwise prevented from discharging the said function, the Vice- President should make the necessary appointment. If the Vice- President is a national of either contracting party or if he, too, is prevented from discharging the said function, the member of the court next in seniority who is not a national of either contracting party should make the necessary appointments.

(5) The arbitral tribunal shall reach its decisions by a majority of votes. Such decisions shall be binding. Each contracting party shall bear the cost of its own member and of its representatives in the arbitration proceedings; the cost of the chairman and the remaining costs shall be borne in equal parts by the contracting parties. The arbitral tribunal may make a different regulation concerning costs. In all other respects, the tribunal shall determine its own procedure.” (BIT between Thailand and Germany 2002, 2016)

### ***Settlement of Disputes between the Contracting Party and an Investor***

In 1961 Treaty, Article 11 provided only state-to-state claims. (BIT between Thailand and Germany 1961, 2016) After 1961 Treaty was terminated and 2002 Treaty has entered into force, the 2002 Treaty adds settlement of disputes between the contracting party and investor in Article 10 which stated that: “(1) Dispute concerning investment between a contracting party and investor of the other contracting party should as far as possible be settled amicably between the parties in dispute.(2) If the dispute cannot be settled within six months from the date on which it has been raised by one of the parties to the dispute, it shall, at the request of either party to the dispute be submitted for arbitration. Unless the parties to the dispute have agreed otherwise, the provisions of Article 9(3) to (5) shall be applied mutatis mutandis on condition that the appointment of the members of the arbitral tribunal in accordance to Article 9 (3) is affective by the parties to the dispute and that, insofar as the period specified in Article 9(3) are not observed.

Either party to the dispute may, in the absence of other arrangements, invite the President of court of International Arbitration of the International Chamber of Commerce in Paris to make the required appointments. The award shall be enforced in accordance to domestic law. (3) During arbitration proceedings or the enforcement of an award, the contracting party involved in the dispute shall not raise the objection that the investor of the other contracting party has received compensation under the insurance contract in respect to all or part of the damage. (4) In an event when both contracting parties become contracting states of the convention of 18 March 1965 on the Settlement of Investment Disputes between State and Nationals of Other States, disputes under this article between the parties of dispute shall be submitted for arbitration under the aforementioned convention, unless the parties in dispute agree otherwise; each contracting party herewith declares its acceptance of such protection.” (BIT between Thailand and Germany 2002, 2016).

Thailand has signed the ICSID Convention, but still has pending ratification case. It is not binding Thailand at this time, however, it can use services provided under the ICSID in case additional facilities rule out. In real practice of *Ad hoc* to the case of *Walter Bau AG and Thailand*, has summarized the process that “the provision in Article 9(3) to (5) of the 2002 Treaty, referred to in Article 10 above, required each party to appoint a member of an



arbitration tribunal The two members so appointed should nominate a national of a third state to be the chairman of arbitral tribunal within three months from the date when the claimant give notice that it intended to submit the dispute to an arbitral Tribunal (i.e.21 September 2005). In default of the co-arbitrators agreeing on a chairman, the nomination of a chairman to be made by the president of the Court of International Arbitration of the International Chamber of Commerce, Paris (the “ICC Court”) must take place. Article 9 of the 2002 Treaty deals with state arbitration in the event of a dispute concerning interpretation or application of the treaty.” (Walter Bau A.G. v Thailand 2009:2-3)

“Under the Term of reference the judicial seat of arbitration is in Geneva, Switzerland. The applicable law for the arbitration is the public international law and under term of reference of UNCITRAL Arbitration Rules (“the UNCITRAL Rules”) and evidence taking in International Commercial Arbitration adopted by the International Bar Association (“the IBA Rules”). Chairman was empowered to make procedural rulings alone and tribunal and the parties who agreed that Presiding Arbitrator might make procedural rulings alone provided that all correspondence is copied to the co-arbitrators; the Presiding Arbitrator shall be free to consult, in his discretion, with the other arbitrators or to refer significant or difficult matters to the full tribunal for decisions; and the full Tribunal shall hear and determine any procedural matter if requested by either Party.” (Walter Bau A.G. v Thailand 2009:6-7)

In this case, the tribunal has awarded Thailand as the respondent to pay the sum of 29.21 million EURO to the claimant Walter Bau AG as a damage for the respondent’s breaches of its obligations to claimant as an investor under 2002 Treaty.” (Walter Bau A.G. v Thailand 2009:163) This means that Thailand lost the case. Thailand is also member of the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards 1958. After this case Thailand does not protest to withdraw arbitral award in Switzerland, which means that this is under *res judicata*.

As an effect of the membership of the New York Convention, Schneider, as the insolvency administrator of the German company Walter Bau AG can file an application with the court in USA for the recognition and enforcement of foreign arbitral and for the affirmation of the US court. (Schneider v Thailand, 2012) Thailand tried to protest arbitral award but was unsuccessful. It means that properties of Thai Government may enforce execution of judgment in court of the USA.

In Germany, Schneider as Liquidator of Walter Bau AG, seized the Thai crown prince’s Boeing 737-4Z6 at Munich airport in 2011 by the decision of Berlin Court of Appeals. However, the German Supreme Court (Bundesgerichtshof, BGH) doesn’t agree and has decided that if an arbitral tribunal has an error in his competence, Thailand as the state party is not necessary to waive its immunity from jurisdiction and need not to appeal an award on a jurisdiction which does not constitute waiver of its sovereign immunity. It has to go back to the lower court to determine the right subject matter in dispute of 2002 Treaty with recognition and enforcement of foreign arbitral awards. (Vanina Sucharitkul and Gregory Travaini : 6)

Suggestions about the decision of courts in USA and Germany may conclude that it must have recognition of foreign arbitral award before enforcing the seizure of properties of the state, which loses the case in arbitration. Internal state court must check the legality of foreign arbitral award under the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards 1958 Article 5, if internal state court does not checks it in foreign arbitral award. This means that the state that loses the case does not waive its sovereign immunity.

### **Some problems on how to renegotiate in new BIT of Thailand with Germany**

After exploring the investment protection provisions of two treaties, the 1961 Treaty is terminated and replaced by 2002 treaty while Thailand and Germany hope that there is still good ways for investment opportunities. However, when Thailand lost in the case of *Walter Bau AG and Thailand*, some problems appeared and it must renegotiate new BIT again with Germany. In practicing BIT, it looks like a model of investment treaty and developed countries invent it. There are major imbalances and inequality traditions in BIT. Developing countries are in a position of inequality and bargaining power in BIT negotiation is on a disadvantage area. (Huaqun : 300-304) But if in positive vision of Thailand and Germany, it still has the way to renegotiate new BIT in the concept of balance, sustainability and integrative agreement based on UNCTAD'IPFSD (Huaqun : 329-330) and Model International Agreement on Investment for Sustainable Development by IISD that may apply to renegotiate like the good way for a developing country like as Thailand. (Mann, Molke, Peterson and Cosbey 2006 : xii) To establish concern with investment protection in provision of 2002 Treaty, author suggests problems and how to solve and write suitable words and suitable sentence in new BIT for Thailand to renegotiate with Germany.

#### ***Problem about scope of Application***

Article 8 of 2002 Treaty applies to investments made before its entry into force. This means that it shall apply to approve investment under 1961 Treaty and it doesn't mean retroactivity into force of 2002 Treaty. Imbalance as it is and seems like retroactive in protecting investment which are not suitable in Thailand because of some investments like in state or public services. Thailand loses sovereignty to control state-public service and depends only on 3 persons who are in arbitral tribunal. It is very easy to say that the new BIT between Thailand and Germany will not definitely protect investments made prior to new BIT. This BIT will protect only investments in the future but it has no justice and not suitable for Germany due to its numerous investments in Thai territory and still must have investment protection. As its improvement, the new BIT shall specify regulation that "this treaty does not apply any investments that are made before or after the entry in to force of this treaty, contracting parties shall have measures adopted or maintained in annex of treaty." (Mann, Molke, Peterson and Cosbey 2006 : 8) Examples are measurement to adopt protection of economic sector, state-public service, private commercial sector and non nation level.

#### ***Problem about definition of investment in intellectual property***

However, it may eliminate intellectual property in new BIT but it is not suitable for Germany. Thailand and Germany are members of WTO and TRIPS. Because of this, they shall write new BIT in relation to protection of investment in intellectual property under the TRIPS., with Doha Declaration and contracting parties shall be consistent with development of technology and transfer.

#### ***Problem about definition of investor in case of Legal entities***

Purpose of BIT between Thailand and Germany is for Thai or German investor and not for the third country. For instance, if an American investor and a major shareholder established a company in the territory of Germany under its law, can enjoy the protection of investment under this BIT between Thailand and Germany. It is an abuse of purpose of BIT., about investor if investor is a legal entity. In that case, the new BIT shall write clearly that "Contracting parties may deny the benefit of this treaty if investors of a non-party own or

control the legal entity.”( Mann,Molke,Peterson and Cosbey 2006 : 10) and German minority shareholder still has investment protection unchanged and problem about legitimacy of expectation of minority shareholder and interpretation will consider in next subtopic of FET in number 4.5.

### ***Problem about National Treatment and Most-Favoured-Nation Treatment (MFN. Clauses)***

Text in 2002 Treaty is mixed between National Treatment and MFN in Article 3 and is very confusing when contracting terms is interpreted. This must be written separately in the new BIT.

#### ***National Treatment***

The step to renegotiate in new BIT between Thailand and Germany about national treatment may be written in new BIT wherein “each contracting parties shall create good conditions for national treatment under own domestic law.” (BIT between The Czech Republic and Canada 2009, 2016) “Contracting parties shall accord to its investment and investors, and the treatment must no less than that it accords, in like circumstances and equally, to its own investment or its own investor with respect to conduct, operation, expansion and sale or the other disposition of investment.” “Lower level of government in state-public service or state procurement is not in accordance to national treatment.”( Mann,Molke,Peterson and Cosbey 2006 : 12) “Plus measure of domestic health, safety or environment must not accord to national treatment too” (BIT between The Czech Republic and Canada 2009, 2016) and has to apply unequally to morality and exclude tax, custom, custom union, economic union and free trade area.

#### ***Most-Favoured-Nation Treatment (MFN. Clauses)***

In terms of Most-Favoured-Nation Treatment (MFN.Clauses), it shall write in new BIT between Thailand and German that “ each contracting party shall accord to investors and investments of contracting party no less favourable than that accord, in like circumstances to investors and investments of any third state under domestic law.” ( Mann,Molke,Peterson and Cosbey 2006 : 14-15) “Plus measure of domestic health, safety or environment not accord to MFN Clause” (BIT between The Czech Republic and Canada 2009, 2016) and has to apply unequally to morality and exclude tax, custom, custom union, economic union and free trade area.

#### ***Problem in Fair and Equitable (FET.) when interpret it***

In case *Walter Bau AG and Thailand*, Thailand lose the case because Arbitral Tribunal has decision that “Walter Bau AG who is a minority share holder only holds 9.87% and Walter Bau AG as a claimant has the right of legitimate expectations in his investment. Thailand could not breach principle of FET to limit the right of legitimate expectations.” The question is “does the shareholder’s 9.87% has legitimate expectation of investment? It is very non proportional and tribunal of this case for former arbitral decisions but the tribunal of this case didn’t think about the subject matter in proportion to holdings per share of investor which is suitable to make decision if an investor has the right of legitimate expectations. Unpleasant effect will come to Thailand if that investor who has share of only 0.1% can sue Thai government in arbitral tribunal and cite that the country has breached of FET.

The problem is arbitral tribunal does not have public international law to decide and thought only of former arbitral decisions. It is very easy; however, former arbitral decision does not state decisions of public international law. So the author's proposal shall be written in the new BIT between Thailand and Germany that may serve as a flame of international law in FET which state that "each contracting party shall accord to investors and investments treatment in accordance to customary international law, including fair and equitable treatment and full proportional protection and security with non discrimination" (Mann,Molke,Peterson and Cosbey 2006 : 15-16) Author suggests customary international law because it has a regulation which all the world has *opinio juriis* with state practice and it is very suitable if arbitral tribunal cite public international law as customary in which all parts of the world, both developed country and developing country, agree without refusal.

### ***Problem about Expropriation and make clear exception***

In 2002 Treaty, expropriation shall apply with full protection and Most-Favoured-Treatment in article 4(1) and 4(4) will be eliminated and shall be written in the new BIT between Thailand and Germany which states that "no party may directly or indirectly nationalize or expropriate an investment in its territory, except for a public purpose, on a nondiscriminatory basis, under due process of law" (Mann,Molke,Peterson and Cosbey 2006 : 16-17) "and payment of compensation is in accordance prompt, adequate and effective." Such compensation shall be based on the real value of the investment at the time of the expropriation, shall be payable from the date of expropriation at a proportional fair market value" (BIT between The Czech Republic and Canada 2009, 2016) and "compensation shall be paid without delay and fully realizable. Consistent with the right of state to regulate with *Bona fide*, proportional, and non- discriminatory for the purpose of protecting public interest welfare, public health, safety and environment, and do not constitute an indirect expropriation." (Mann,Molke,Peterson and Cosbey 2006 : 16-17)

### ***Problem about umbrella clause and to be changed as procedural fairness***

Case *SGS v Philippines* and Case *SGS v Pakistan* show uncertainty of umbrella clause while Thailand loses its sovereignty to manage "state-public service" by the concept of "*Contrats administratifs*"

Almost all BIT's has umbrella clause for the reason that it guarantees a party from risk of domestic law of host state but it will lost sovereign to manage state- public service. It will eliminate umbrella clause from new BIT between Thailand and German but the former must make some measures to guarantee German investors and investments for successful integration. Author suggests that, when renegotiation of new BIT between Thailand and German takes place, it must to have legal expert staff who knows public international law, German Public Law, Thai Public Law, administrative law and public economic law. Thailand and Germany have the same legal system "Romano-Germanic" (Civil Law) and they have Administrative Law and Court Procedure.

Thereby, cooperation in legal education between Thailand and Germany will make opportunity of development for BIT. This only means that, it is very easy to make procedural fairness for BIT to replace umbrella clause. May be writing procedural fairness in BIT which states that host states shall ensure that their administrative, legislative and judicial process do not operate in a manner that is arbitrary or denies administrative and procedural fairness to investors and investments.

Investors or investment shall be notified in a timely fashion of administrative or judicial proceeding directly relating to them unless such notice is contrary to domestic law on an exceptional basis.”( Mann,Molke,Peterson and Cosbey 2006 : 32-33) “Host states shall not create a denial of justice in judicial and administrative proceeding.”( Mann,Molke,Peterson and Cosbey 2006 : 32-33) “Host state should strive to improve the transparency, efficiency, independence and accountability of their legislative, regulatory, administrative and judicial process.”( Mann,Molke,Peterson and Cosbey 2006 : 32-33)

“Judicial and administrative review process shall be open to public and documents shall be accessible and decision shall be available to public.”( Mann,Molke,Peterson and Cosbey 2006 : 32-33)

### ***Problem about Settlement of Disputes between the Contracting Party and an Investor***

Some non suitable situation happened when investor went to use settlement of disputes between the contracting party and an investor. Thailand does not refuse international arbitral tribunal but the new BIT between Thailand and Germany shall be adjusted. Author suggests two ways to choose from, the first way is “a dispute between investor and contracting party may not be commenced until domestic remedies are exhausted”( Mann,Molke,Peterson and Cosbey 2006 : 61 ) or the second way where “the fork in the road, such a clause provide that investor must choose between the litigation of its claims in the host state’s domestic courts or through international arbitration and that the choice, once it has been made, is final for instance.” (Dolzer and Schreuer 2008: 216)

### ***Offer some obligations for Thailand and Germany in new BIT***

Some obligations for Thailand and Germany in new BIT will be added into. Exactly obligations to take care of the environment in host state, to improve good governance and anti-corruption, to transfer technology and others according to sustainable development between Thailand and Germany must be taken carefully.

### **Conclusion**

For a long period of time, Thailand and Germany have international investment relation in the form of an agreement. BIT is an investment regulation between Thailand and Germany with the purpose of developing of international investments. The first modern investment treaty was signed between Germany and Pakistan in 1959. It means that, BIT is an international legal invention of Germany and it has advantages in developing international investment with a guarantee of risk in standards of domestic law. Thailand has an advantage from BIT too. Just like a host state of investment, it becomes very easy for Thai investors to invest in German territory. After the case of *Walter Bau AG and Thailand*, Thailand lost the case and in this situation, the country considered the decision as very imbalance and non-equitable in BIT.

Thai people misunderstood that BIT is a disadvantage and it is a thief. But in a real situation the country still has an advantage from BIT. However BIT between Thailand and Germany must be adjusted and improved for promoting balance, sustainable development and integration under the concept of UNCTAD and Model International Agreement on Investment for Sustainable Development by IISD which the whole world agreed as a better way to develop international investment. Nowadays, Thailand’s BIT is still very good and continuously making an advantage. However Thailand’s situation in international investment under BIT depends on its political stability, good governance, and Rechtsstaat.



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# Mediating Effects of Collaboration Among Business Supply Chain Firms on Inter - Organizational Trust And Knowledge Sharing Intention

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## Abstract

Knowledge sharing studies in the fourth industry revolution is still new. Therefore, an empirical study had been conducted in this research, and the result might be useful for the multinational supply chain firms in the economy of digital era. This research aims to examine how collaboration among business supply chain firms mediates the relationship between inter-organizational trust and knowledge sharing intention; explicit knowledge and tacit knowledge. The data was collected through simple random sampling technique of 50 multinational organizations, both in Thailand and some in USA. By using partial least square regression analysis, the result showed that there was positive relationship between inter-organizational trust and knowledge sharing intention as well as inter-organizational trust and collaboration. In addition, the indirect relationship between inter-organizational trust and explicit knowledge sharing intention was also found through the mediating effect of collaboration. The analysis also found that collaboration was the real mediator between inter-organizational trust and explicit knowledge sharing intention. Overall, the evidences suggested that both explicit knowledge sharing and tacit knowledge sharing intention could be acquired by increasing both inter-organizational trust between business firms and collaboration.

**Keywords:** inter-organizational trust, collaboration, explicit knowledge sharing, tacit knowledge sharing.

## Introduction

Industry 4.0 or the fourth industrial revolution is the current trend of automation and data exchange in manufacturing technologies nowadays. Consequently, everything is defined itself as 4.0; manufacturing 4.0, factory 4.0, logistics 4.0, supply chain 4.0, for instances. The drive toward globalization of industry 4.0 since 2011 by German organizations are increasingly expanding to overseas markets where organizational viability can work collaboratively across and within cultures differences (Salas & Gelfand, 2013). Most multi-organizational firms have been planning and targeting their future basing on industry 4.0 methodologies: cyber-physical systems (CSP), internet of things (IoT) and cloud computing. To achieve goal, knowledge management strategy especially knowledge sharing among inter-organizational firms is highly needed and strongly required to support what their future will be. Collaboration is an important strategy that affects organization development.

Tachizawa, E. M., Gimenez, C., & Sierra, V. (2015) studied collaboration in the green supply chain management approaches, they found that whereas collaboration has a direct effect on performance, monitoring has only an indirect relationship through collaboration. Liao, S.H.; Hu, D. C.; & Ding, L.W. (2017) also assessed the influence of supply chain collaboration value innovation, supply chain capability and competitive advantage. The results showed that the relationships among supply chain collaboration value innovation, supply chain capacity and competitive advantage could have a positive impact, and that supply chain capability was a full mediator. Supply chain echelons (upper, middle and downstream) have some moderating effects in these relationships. As we are going to supply chain 4.0, data exchanging or knowledge sharing will play important role in support firm's performance and firm's growth in digital economy era.

Because of the importance of knowledge in today's competitive world, the understanding of employee knowledge sharing has become critical (Hau et al., 2013). Antecedents studied found that encouraging employees to share knowledge across an organization could increase and sustain the firm's competitive advantages (Liu & Phillips, 2011). In addition, several studies in knowledge management (KM) have proven that employee knowledge sharing enhances firm performance such as absorptive capacity and innovation capability (Liao, Fei & Chen, 2007; Liu & Phillips, 2011). Moreover, knowledge sharing among team members is essential in maintaining high levels of group and organizational productivity.

However, to be able to survive in high competitive world, particularly in Blue Ocean Market Strategy, inter-organizational trust is very important (Yan et al., 2016). Previous researchers had argued that lacking trust and collaboration between inter-organization, willingness to share valuable knowledge both explicit knowledge and tacit knowledge might not be effective, especially in term of innovation, financial performance and operational performance (Wang & Wang, 2012). This is the reason that our present research will find out what factors affect knowledge-sharing intention in supply chain field. Manufacturing is the process of converting raw materials, components, or parts into finished goods that meet a customer's expectations or specifications.

Manufacturing commonly employs a man-machine setup with division of labor in a large scale of production (Businessdictionary.com, 2017b) Roosevelt Institute. (2017) indicates that manufacturing is so important with 6 supported reasons. 1) Manufacturing has been the path to development and the key to prosperity, e.g. in Korea, Taiwan, and China. 2) Manufacturing is the foundation of global great power; the most powerful nations of the world are those who control global production of manufacturing technology. 3) Manufacturing is the most important cause of economic growth; the manufacturing machinery and technological improvements are main drivers of economic growth. 4) Global trade is based on goods, not services; according to WTO, 80% of world trade among regions is merchandise trade. 5) Services trade are dependent on manufactured goods. 6) manufacturing creates jobs. Therefore, manufacturing is the most interesting industry to study rather than other industries. However, the model proposed in this study may not be the best one, it links the variables and can be applied to all industries. To make the word manufacturing clear, Balakrishnan, R., Sivaramakrishnan, K. & Sprinkle, G. (2012: 98) explained the word "manufacturing firm" that it is a firm that uses labor and equipment to transform inputs such as materials and components into outputs

The purposes of this paper are two folds. First, to examine the relationship between inter-organizational trust and two types of knowledge sharing; explicit knowledge sharing (ES) and tacit knowledge sharing (TS), in supply chain firms. Another purpose is to see whether collaboration among inter-organizational supply chain firms mediates relationship between inter-organizational trust and knowledge sharing. The benefit of this research is to know the

factors that impacts knowledge sharing intention, both ES and TS, through inter-organizational collaboration, to improve firm's performance and gain more competitive advantage in global supply chain field. We, therefore, applied three theories; theory of reasoned action (TRA) (Ajzen, 1985) theory of planned behaviors (TPB) (Ajzen, 1988) and social exchange theory (SET) (Blau, 1964) as theoretical foundation to develop the research. The presentation in this paper is as follows: chapter 2 reviews the theoretical background, previous literatures and hypotheses creation. Chapter 3 presents research methodology. The result analysis, discussion and conclusion will be shown in chapter 4 and chapter 5 respectively. The implications and limitations of this research are discussed at the end of this paper.

## **Background and Hypothesis**

### **Theories applied on knowledge sharing intention**

#### ***Theory of reasoned action (TRA)***

Theory of Reasoned Action (TRA) is a social psychology model, which explained the intention behavior reasons (Ajzen, 1985). It is widely used by many scholars to determine the individual behavior intention. Individual intention behavior always be influenced by a positive attitude and social norms. Attitude defines as a tendency to respond favorably or unfavorably to the self, others and the environment (Ajzen, 1985) whereas social norm defines as the way individuals think and expect from others towards different actions.

#### ***Theory of planned behavior (TPB)***

A psychologist, Icek Ajzen (1985), introduced theory of planned behavior (TPB) that links beliefs and behaviors together. This TPB was developed from the theory of reasoned action (TRA), which was proposed by Martin Fishbein together with Icek Ajzen in 1980 by including perceived behavioral control (PBC). PBC refers to the perceived ease or difficulty of performing the behavior and the amount of control. It deals with situations in which people may lack of complete control over the behavior in question (Ajzen, 1991). In another word, TPB is a theory explaining human behavior stated that attitude toward behavior, subjective norms, and perceived behavioral control, shapes an individual's behavioral intention. As TPB defines the individual's intention to perform a given behavior, the intention need to be clear and precise on what individual wants to get and response to the individual behavior's decision to perform. TPB applied to study the relations among beliefs, attitudes, behavioral intentions and behaviors in various fields, including knowledge sharing. Jafarkarimi et al. (2016) stated that using TPB concluded attitude and subjective norm that influence behavioral intention in social networking sites.

#### ***Social exchange theory (SET)***

Social exchange theory (SET) is defined as an exchanging of a valuable resource which benefits between two parties. This theory practices to maximize the benefit and reduce the cost that will affect the individual actions (Blau, 1964). According to the antecedent of SET, this theory describes the rational behavior of the individual to perceive the possibility of rewards that they would gain from the social exchange. Reward can be money, social approval, self-esteem or respected by others and compliances (Blau, 1964). According to Razak & White (2015) SET concept has been defined by some scholars in similar ways, for instances; SET has regarded to the maximize benefits and minimize costs that incurred when an individual exchange with others (Cry & Choo, 2010). Another scholar also supported that individual seek

to maximize their benefits and minimize their costs when exchanging resources with others (Molm, 2001). According to SET, knowledge sharing is a kind of exchange behavior (Bock et al., 2005). Users who share knowledge may want to get some return of either intrinsic or extrinsic benefits (Kankanhalli, Tan & Wei, 2005). Intrinsic benefits are the feelings of pleasure and satisfaction that people experience when participating in an activity. It is intangible and cannot be measured directly. Intrinsic benefits motivate individuals to perform certain activities only for personal fulfillment and gratification. Extrinsic benefits come from outside in the form of rewards, promotion, coercion, or punishment. The main extrinsic benefits of exchange behavior are economic reward, reciprocal benefits, and reputation feedback (Yan et al., 2016). According to TRA, this research focuses on the intention of knowledge sharing behavior between inter-organizational firms. Some previous studies found that attitude toward subjective norms have a positive effect on knowledge sharing behavior (Bock & Kim, 2002; Jarvenpaa & Staples, 2000). Therefore, this research uses knowledge sharing behavior as it is affected by attitude, subjective norms, and knowledge sharing behavior.

Roos, D. & Hahn, R. (2016) indicated that while collaborative consumption is a promising solution for unsustainable consumption practices, attitude, personal norm, and self-identity had significant positive relationships with intention to consume collaboratively, explaining a large amount of its variance. Intention and perceived behavioral control had significant positive relationships with self-reported collaborative consumption and explained a medium amount of its variance. To summarize, these three theories suggested that attitude, subjective norms, perceived behavioral control, and exchanging of maximizing benefits and minimizing cost in turn leads to drive individual towards knowledge sharing behavior (Razak & White, 2015).

### **Explicit and tacit knowledge sharing**

Explicit and tacit knowledge has opposite meaning. Explicit knowledge is articulated knowledge, expressed and recorded as words, numbers, code mathematical and scientific formulae, and music notations. Explicit knowledge is easy to communicate, store, and distribute. It is found in books, web, and other visual and oral means (Businessdictionary.com. 2017a). Tacit knowledge is the unwritten, unspoken vast storehouse of knowledge held by practically every normal human being, based on his/ her emotions, experiences, insights, intuition, observations, and internalized information. It also called informal knowledge. Businessdictionary.com. (2017c). Example of both knowledge is an iceberg; explicit knowledge is the tip of the iceberg that can be seen above the marine, while tacit knowledge is the bottom part of the iceberg underneath the marine which is a lot bigger that cannot be seen.

Knowledge management (KM) is one of the most important components in business to maintain firm's competitive advantage (Cummings & Teng, 2003; Razak & White, 2015). Consequently, KM has increased improving firm's performance and business growth along with high technology and innovation influences (Wang & Wang, 2012). One of the most necessary components of KM is knowledge sharing, which is the fundamental means that employees can exchange their knowledge and contribute knowledge application, innovation, and ultimately the competitive advantage of the organization (Wang & Noe, 2010). The way to share knowledge between business partners is different, depending on types of knowledge sharing—explicit or tacit knowledge.

Explicit knowledge sharing (ES) is the process of sharing codified knowledge that can easily captured and transmitted. Most of explicit knowledge can be documented such as reports, procedure, policies, handbooks and information technology system (Hislop, 2013). Nield, T (2017) suggested that a good organization values metrics and performance based on value contribution. If someone is decent at his job, you are contributing value. But if you can



consistently and successfully train others on what you do, you are increasing your value exponentially, and this put you in the position of leadership. A primary aspect of effective leadership is being able to spread your knowledge to others, increasing yours and others positive impact on the organization, and this will not go unnoticed. It's a subtle way to take your role at the organization to a much higher profile. However, accessing the tacit knowledge is more difficult, the employees are willing to share their explicit knowledge (Coakes, 2006; Huang, Davison, & Gu, 2010).

The tacit knowledge is more difficult to illustrate or express in personal interaction than explicit knowledge. Keys to tacit knowledge sharing are the willingness and capacity of individuals to share what they know (Holste & Fields, 2010; Lin, 2007; Lee et al., 2007). Human experience is the foundation of tacit knowledge sharing (TS) because individual cannot take advantage of new knowledge unless that person has social software connected to it. Tacit knowledge is subjective, context specific, and difficult to capture and formalize so it is not easy to express or communicated visually or verbally (Nonaka, Toyama & Nagata, 2000).

### **Inter-organizational trust to knowledge sharing; ES and TS**

Trust is one of an important aspect of business relationships success. It is necessary to gain trust in business relationships. Many antecedents defined trust as the reliability between parties (Zaheer, McEvily, & Perrone, 1998). According to Mayer, Davis, & Schoorman (1995), trust posited as the belief in, and willingness to depend on, another party. Trust is also the intention or willingness to accept vulnerability based on positive expectations of the intentions or behavior of others. One of component of inter-organizational trust, to build on objective of expected benefits and proven capacity (Jiang, Henneberg & Naudé, 2011). Therefore, inter-organizational trust is defined as the extent that the business firm holds positive expectations which relies on their business partners, to do what has been expected to fulfill their specific needs, given its proven capability (Jiang, Henneberg & Naudé, 2011; Mouzas et al., 2007).

Once trust between inter-organization is good, knowledge sharing between business partners will be easy to transfer and exchange. Consequently, knowledge between businesses partners will be potentially started sharing. Explicit knowledge, for example; all tangible things, report, policy, procedure, is easier to share. In contrast, tacit knowledge, for example: experience, technical skills, customer behavior, is more difficulty to interpret and predict. It may take time to learn unless two business partners share each other. Sharing knowledge to each business partners improved firm's performance and productivity, including sustaining the firm's competitive advantages (Liao, Fei & Chen, 2007; Liu & Phillips, 2011). According to literature review above, the first two hypotheses would be as follows:

**Hypothesis1:** inter-organizational trust is positively associated with explicit knowledge sharing intention

**Hypothesis2:** inter-organizational trust is positively associated with tacit knowledge sharing intention

### **Inter-organizational trust to collaboration**

Previous research has argued that inter-organizational trust and learning are critical factors associated with successful supply chain innovation and long-term competitiveness (Ojha, Shockley & Acharya, 2016). In addition, trust can lead to more effective and efficient cooperative behavior among individuals, groups, and organizations (Becerra & Gupta, 2003; Gulati & Sytch, 2008; Hansen, Hoskisson & Barney, 2008)



When people trust someone, their attitude, belief and social norm are ready to understand what other does or thinks. According to SET (Blau, 1964) they tend to collaborate with another to meet individual goal. Similarity, in inter-organizational level, if one organization trust each other, they potentially collaborate and support each other to meet their goal together (Ojha, Shockley & Acharya, 2016). The expectation reward from collaboration is either intrinsic or extrinsic depending on the situation at that time. Therefore, the third hypothesis would be as follows:

**Hypothesis3:** inter-organizational trust is positively associated with collaboration

### **Collaboration to knowledge sharing; ES and TS**

According to Osland & Yaprak (1995), the ability to acquire, absorb, and transfer knowledge from inter-firm collaboration has become more crucial, which leads to the suggestion that a strategic alliance is like a learning battlefield. Moreover, even collaboration supports certain important work activities, such as the planning of new products and the pursuit of interface usability (Alby & Zuccheromaglio, 2008) but there are rare studies that examine collaboration as a mediator between inter-organizational trust and knowledge sharing intention.

Prior research conducted by Wang, Wang & Liang (2014), focusing on innovation and intellectual capital (IC) as simultaneously two mediators in knowledge sharing instead of collaboration. The results indicated that these two factors mediated the relationship between knowledge sharing (KS) and firm performance (FP). Therefore, in this research we will deeply examine whether collaboration mediate the relationship between inter-organizational trusts and two kinds of knowledge sharing intention; ES and TS in supply chain field.

The regular collaboration among firms in supply chain filed is that the two business partners share explicit knowledge to each other in term of reports, for in stances, sales forecast, annual demand, customer's requirement, and customer specification. This kind of knowledge sharing could be done easily. Tacit knowledge such as customer's behaviors, seasonal demand, and technical shooting in the past can help them understand the situation to predict future with explicit knowledge.

This kind of knowledge sharing is intangibles and it needs time to understand. Therefore, observation, personal communication, on the job interaction, are practical ways to cope with those problems. However, without trust, sharing knowledge between firms may not be efficiently and effectively benefits. Consequently, collaboration plays important role in mediating the relationship between inter-organizational trust and knowledge sharing intention as two following hypotheses:

**Hypothesis4:** collaboration is mediating the relationship between inter-organizational trust and explicit knowledge sharing

**Hypothesis5:** collaboration is mediating the relationship between inter-organizational trust and tacit knowledge sharing

According to five hypotheses above, we therefore propose conceptual model as follows:

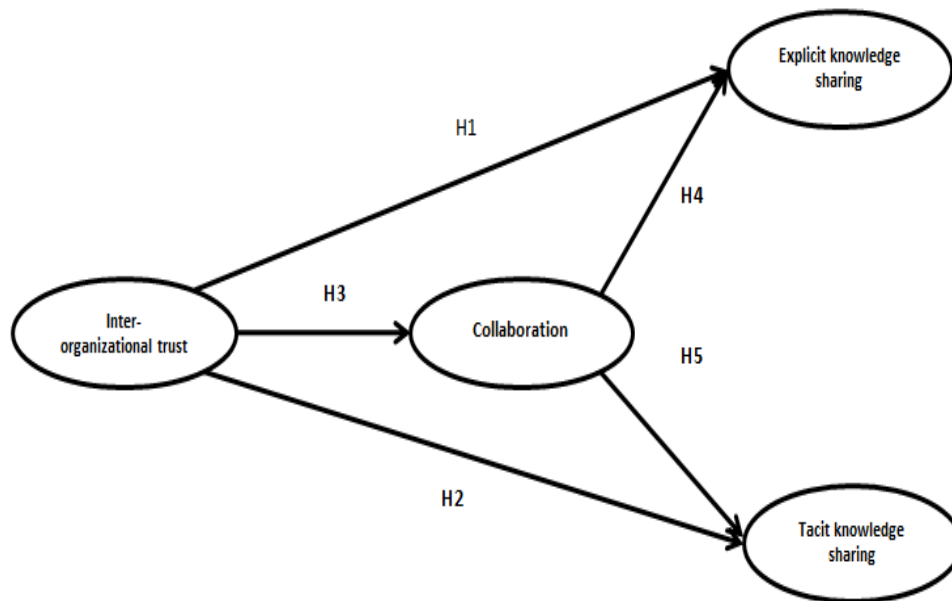


Figure 1. Conceptual model

## Methodology

### *Sample and Data Collection*

The manufacturing industry plays a major role in terms of the supply chain context, transforming raw materials and other components into products. The targeted group of the study are the specific multinational firms, both in Thailand and in the US. The multi-national firms used have employees from diversity nations and races doing business both in Thailand and other countries, and basing in Thailand for merchandize production and distribution, using English language for communication. The list of firms were from the Stock Exchange of Thailand. This is as an ideal target of intensive communication and interaction that occurs among suppliers, wholesalers, and retailers (Chen et al, 2014). That is why our all samples frames for this study are focusing on supply chain field in specific multinational organizations. 90 questionnaires were randomly distributed to head of supply chain department in multinational manufacturing firms, which are firms both in Thailand and in foreign countries. There were 52 respondents' feedbacks, 57.77% of response rate. However, only 50 respondents' answer (N=50) can be used, the rest need to be rejected.

### *Measures*

The survey instrument is composed of four scales: inter-organizational trust (4 items), collaboration (5 items), explicit knowledge sharing (6 items) and tacit knowledge sharing (7 items). Every single item is used a five-point Likert Scales to measure a respondent's answer. Inter-organizational trust scale belonging to Ashnai et al. (2016) used adopted from Jiang, Henneberg & Naudé (2011). Collaboration scale developed by Chen et al. (2014). Explicit knowledge sharing scale and tacit knowledge sharing scale used developed from Wang, Wang & Liang (2014) and Wang & Wang (2012). All questionnaires are in appendix 1.

### *Data Analysis*

Data analysis was determined by using SPSS (version 23) regression analysis to test the hypothesis of the study. Hypothesis 1, 2, 3, 4 and 5 will be directly tested the relationship between independent available and dependent available as normal. To test mediating effect, Beta value ( $\beta$ ) and standard error of hypothesis 3 versus hypothesis 4 also hypothesis 3 versus hypothesis 5 will use Sobel test as the final step. The reliability test done by distributing 30 questionnaires via email to people working in multinational firms in the field of supply chain in Thailand. Reliability tests result are in Table2. According to reliability test result, all of Cronbach's Alpha value ( $\alpha$ ) is more than 0.6, which is acceptable for conducting a research (Nunnally, 1978): inter-organizational trust (.661), collaboration (.814), explicit knowledge sharing (.704), and tacit knowledge sharing (.867).

## Results

Respondent's demographic characteristics, firm's size and annual sale revenue are in table1. Most of respondents are male (56%), average aging is 38.3 years old, single (50%), and mostly graduated master degree (54%). Most of them are supervisor (42%) and managers up (44%). Average in year work experience of respondents in multi-organization firms is about 11 years.

Table1. Demographic characteristics, work experience, firm's size and annual revenue

<b>Gender</b>	<b>Male: 28 (56%)</b> <b>Female: 22 (44%)</b>
<b>Age (years)</b>	Mean: 38.30 Standard deviation: 8.586
<b>Marital Status</b>	Single: 25 (50%) Married: 23 (46%) Divorced: 2 (4%)
<b>Education</b>	Under Bachelor's: 2 (4%) Bachelor's: 17 (34%) Master's: 27 (54%) Doctorate: 4 (8%)
<b>Position</b>	Supervisor: 21 (42%) Manager: 17 (34%) Senior Manager: 5 (10%) Director, CEO, Vice President: 7 (14%)
<b>Work Experience (years)</b>	Mean: 11.30 Standard deviation: 8.142
<b>Firm size (number of employees)</b>	< 100 employees: 13 (26%) 101-500 employees: 15 (30%) 501-1,000 employees: 4 (8%) >1,000 employees: 18 (38%)
<b>Firm annual sales (Million USD)</b>	< 100 Million USD: 22 (44%) 101-500 Million USD: 8 (16%) 501-1,000 Million USD: 7 (14%) >1,000 Million USD: 18 (36%)

Table 2. Reliability Statistics Test: Cronbach's Alpha value ( $\alpha$ ) in special variables

Variables	Cronbach's Alpha ( $\alpha$ )	No. of items
Inter-organizational trust	.661	4
Collaboration	.814	5
Explicit knowledge sharing	.704	6
Tacit knowledge sharing	.867	7

To reveal correlations between variables, Pearson correlation analysis was determined. Correlation among variables are in table 3. Bivariate correlations between the variables are analyzed using Pearson correlation coefficients. The relationship between variables are explored.

Table 3. Correlation matrix between variables

Variables	2	3	4	5	6	7	8	9	10	11	12
1. Gender (male=1, female=0)	<b>.292*</b>	-.079	.267	.276	.153	.128	.220	.009	-.104	-.016	-.017
2. Age (years)	1	-.197	.025	<b>.489**</b>	<b>.803**</b>	.131	.106	-.120	-.130	-.064	-.033
3. Marital Status (married=1, Single=0, divorced=2)		1	-.144	-.031	-.252	.098	.057	.067	.092	-.081	-.090
4. Educational level			1	<b>.292*</b>	-.116	-.020	-.029	-.053	.036	.057	.086
5. Position				1	<b>.489**</b>	.159	.099	-.025	-.083	.220	.233
6. Work experience (years)					1	.040	.017	-.169	-.234	-.016	.041
7. Number of employees						1	<b>.602**</b>	-.182	-.149	-.196	-.170
8. Firm annual sales (Million USD)							1	.012	.027	.003	.049
9. INTER								1	<b>.424**</b>	<b>.393**</b>	.156
10. COLLA									1	<b>.516**</b>	<b>.415**</b>
11. ES										1	<b>.762**</b>
12. TS											1

Note: \* Correlation is significant at the 0.05 level (2- tailed)

\*\* Correlation is significant at the 0.01 level (2-tailed)

### Hypotheses testing result

All hypotheses are tested, and their results are shown in table 4a and 4b. To conduct a mediating effect test, the researcher tested the relationship between independent variables

At the first step, the researcher tested Inter-organizational trust and collaboration mediator in hypothesis3 (H3), followed by step2, tested the relationship between collaboration mediator, and dependent variables (ES), hypothesis4 (H4). The third step is testing the relationship between independent variable (Inter-organizational trust) and dependent variables (ES), hypothesis1 (H1).

To confirm whether the mediator in model 1 and model 2 was the real mediator, used Sobel test as recommended by Preacher & Hayes (2004), the result is in table 4c

Table 4 a. Dependent variable: Hypotheses (Model 1); H3, H4 and H1

Hypotheses Variables	Dependent variable : ES (N=50)		
	H3 (mediator) Step 1	H4 Step 2	H1 Step3
<b>Gender (Male=1, Female=0)</b>	-.155	.013	-.088
<b>Age (years)</b>	.013	-.021	-.014
<b>Marital Status (married=1, Single=0, divorced=2)</b>	.036	-.157	-.137
<b>Educational level</b>	.046	-.075	-.026
<b>Position</b>	.004	.234	.222
<b>Work experience (years)</b>	-.019	.008	-.001
<b>Number of employees</b>	-.071	-.101	-.120
<b>Firm annual sales (Million USD)</b>	.057	.050	.073
<b>INTER</b>	.460*		.502*
<b>COLLA</b>		.613***	
<b>ES</b>			
<b>TS</b>			
<b>R square</b>	.247	.417	.284
<b>Adjusted R square</b>	.078	.286	.123
<b>Std. Error</b>	.181	.152	.208

Note: \*p<0.05, \*\*p<0.01, \*\*\*p<0.001

H3 shows positive relationship ( $\beta = 0.460^*$ ) between inter-organizational trust and collaboration as expected. It means that once two business partners trust each other, the collaboration between them will increase. This hypothesis is statistically supported (p-value = 0.015) at 95% confidence level. However, there is only 24.7% confidence level ( $R^2 = 0.247$ ) between these variables that can explain the relationship between these variables in this model. H4 shows positive relationship ( $\beta = 0.613^{***}$ ) between collaboration and explicit knowledge sharing as predicted. It means that once 2 business partners collaborated, explicit knowledge sharing between them tend to be strongly increased. This hypothesis is strong statistically supported (p-value = 0.000) at 99.9% confidence level. Moreover, up to 41.7% confidence level ( $R^2 = 0.417$ ) can explain the relationship between these variables in this model. H1 shows positive relationship ( $\beta = 0.502^*$ ) between inter-organizational trust and explicit knowledge sharing as predicted. It means that once two business partners trust each other's, explicit knowledge sharing between them tend to be increased.

This hypothesis is statistically supported (p-value =0.021) at 95% confidence level. However, there is only 28.4% ( $R^2=0.284$ ) can be explained relationship between these variables in this model.

According to regression result of H3, H4 and H1, all of them are positive related significantly, with statistically supported at 95, 99.9 and 95% confidence level; this is called partial mediating effect. To test whether mediator (collaboration) is the real mediator, we did the Sobel test from website and the result has been given in table 4c. Regarding to p-value (0.03\*) of Sobel test, we can have concluded that collaboration is the real mediator in model 1 (figure2).

Table 4 b. Dependent variable: Hypotheses (Model 2); H3, H5 and H2

Hypotheses Variables	Dependent variables: TS (N=50)		
	H3 (mediator) Step 1	H5 Step 2	H2 Step3
<b>Gender (Male=1, Female=0)</b>	-.155	-.025	-.085
<b>Age (years)</b>	.013	-.018	-.013
<b>Marital Status (married=1, Single=0, divorced=2)</b>	.036	-.015	-.091
<b>Educational level</b>	.046	-.007	.005
<b>Position</b>	.004	.166	.172
<b>Work experience (years)</b>	-.019	.012	.004
<b>Number of employees</b>	-.071	-.090	-.126
<b>Firm annual sales (Million USD)</b>	.057	.071	.098
<b>INTER</b>	.460*		.114
<b>COLLA</b>		.396**	
<b>ES</b>			
<b>TS</b>			
<b>R square</b>	.247	.332	.185
<b>Adjusted R square</b>	.078	.181	.002
<b>Std. Error</b>	.181	.130	.177

Note: \*p<0.05, \*\*p<0.01, \*\*\*p<0.001

H3, the regression analysis result is as same as model 1 as above. H5 shows positive relationship ( $\beta= 0.396***$ ) between collaboration and tacit knowledge sharing as predicted. It means that once 2 business partners collaborate, tacit knowledge sharing between them tend to be strongly increased. This hypothesis is strong statistically supported (p-value =0.004) at 99% confidence level. Moreover, up to 33.2% ( $R^2=0.332$ ) can be explained relationship between these variables in this model. H2 shows positive relationship ( $\beta= 0.114$ ) between inter-organizational trust and tacit knowledge sharing as predicted. It means that once 2 business partners trust each other's, tacit knowledge sharing between them tend to be increased. However, this hypothesis is not statistically supported (p-value =0.525) at 95% confidence level. In addition, there is only 18.5% ( $R^2=0.185$ ) can be explained relationship between these variables in this model. According to regression result above, there are only H3 and H5 that are significant with statistically supported at 95% and 99 % confidence level; this is called fully mediating effect. To test the last step, seeing whether mediator (collaboration) is the real mediator as hypothesized, we did the Sobel test from website and the result is in table 4c. Regarding to p-value (0.051) of Sobel test, we can't conclude that collaboration is the real mediator in model 2 (figure3) due to p-value is greater than 0.05.



Table4c. Sobel test for model 1 and model 2

Figure 2. Model 1

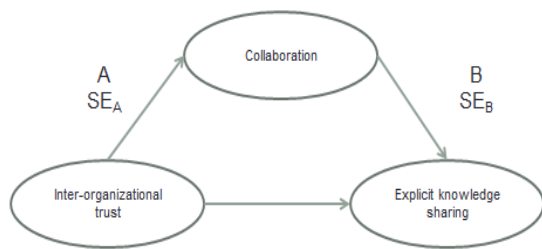
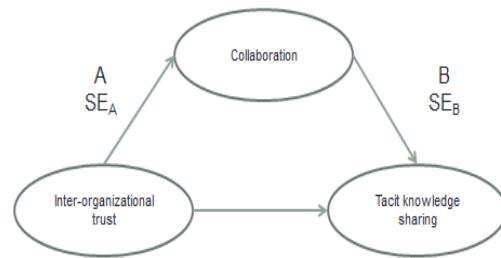


Figure 3. Model 2



		Model G3 2
	Model 1	
A	0.460	0.460
B	0.613	0.613
SE <sub>A</sub>	0.181	0.181
SE <sub>B</sub>	0.152	0.130
Sobel test statistic	2.15011643	1.95144796
One-tailed probability	0.01577300	0.02550189
Two-tailed probability	<b>0.03154601</b>	0.05100378

Where A is the regression coefficient for the relationship between the independent variables and the mediator, B is the regression coefficient for the relationship between the mediator and the dependent variables, SE<sub>A</sub> is the standard error of the relationship between the independent variables and the mediator, and SE<sub>B</sub> is the standard error of the relationship between the mediator variable and the dependent variable.

### Ordinary Least Square (OLS) Regression; OLS model

Testing result indicated that all hypotheses are related to what we hypothesized, based on TRA, TPB and SET as well as some literatures reviewed. Every single hypothesis was supported with statistically significantly, excepting only H2 did not. Moreover, we found that collaboration is the real mediator only in model 1 but not in model. In model 1, collaboration plays an important role to partial mediate relationship between inter-organizational trust and explicit knowledge sharing intention, whereas in model 2 it did not play as the real fully mediator in relationship between inter-organizational trust and tacit knowledge sharing intention. Regarding to all hypotheses above, we can draw ordinary least square (OLS) model as figure4.

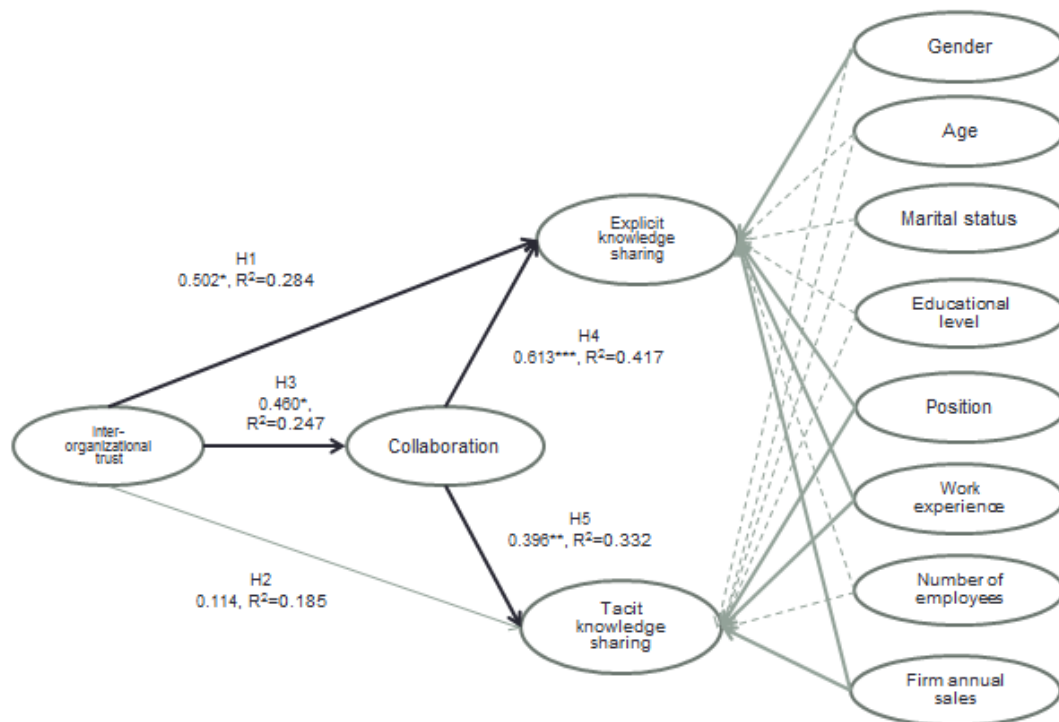


Figure 4. OLS Model

## Discussion and Conclusion

### General Discussion

To gain more competitive advantage, business partners in supply chain filed need inter-organizational trust and collaboration to support knowledge sharing intention, both explicit knowledge and tacit knowledge. This is in line with the previous research which suggested that lack of trust and collaboration between business firms and willingness to share valuable knowledge, both explicit knowledge and tacit knowledge might not be effectiveness especially in term of innovation, financial performance and operational performance (Wang & Wang, 2012). According to hypotheses result, increasing inter-organizational trust between firms will affect not only in making explicit knowledge sharing increased, but also in collaboration between firms that will increase as well. Consequently, explicit knowledge sharing between firms will be significantly increased. In another word, explicit knowledge sharing can be acquired by increasing inter-organizational trust itself and collaboration between business partners. On the other hand, tacit knowledge sharing needs only collaboration between firms to share their knowledge, whereas collaboration tends to be increase if inter-organizational trust between firms increases. However, increasing inter-organizational trust between firms does not mean that tacit knowledge sharing intention will increase; there might be other factors that affect this model.

### Limitation and Future Research Directions

There are some limitations in conducting this research. Firstly, time limitation, all data was collected under cross-sectional designed, so the researcher conducted at one point of time. This may cause high variance in the result. Since this study did not employ a longitudinal

design, it is impossible to judge how much time would affected the relationships between the variables in this study (Vodosek, 2007). Secondly, the number of respondents is quite low (N=50). Therefore, variances may happen and may link to wrong result interpretation. A final limitation is that our sample may not represent all global supply chain behaviors. Information collected was mostly multinational firms in Thailand and some in USA. At the result, there may cause some error by different cultures and geographic location. Therefore, next research should use longitudinal design for data collection in instead of cross-sectional design. Moreover, sample size should represent to entire supply chain population along the globe (Yamane, 1967) and candidate respondents need to be well rearranged and designed to prevent further bias, both from researcher and respondents.

### **Implications**

Although this research gets some valuable findings, but it does not cover all important dependent variables which impact to knowledge sharing intention nowadays. To gain competitive advantage in global supply chain, two business partners should consider sharing knowledge both explicit knowledge and tacit knowledge. The way to share these two kinds of knowledge starting from creating more trust and more collaboration together. Consequently, organizational performance will be improved sustainably in the period of supply chain 4.0 nowadays.

### **Conclusion**

In conclusion, the main finding in this paper is that collaboration mediated the relationship between inter-organizational trust and explicit knowledge sharing intention. Despite research limitations, the study provided some evidence that increasing inter-organizational trust and collaboration can make explicit knowledge sharing intention increase. Moreover, increasing collaboration between firms can make tacit knowledge sharing intention increase. However, increasing inter-organizational trust between firms may not be able to make tacit knowledge sharing intention increase. This is because tacit knowledge sharing between firms need more trust than explicit knowledge sharing. The more trust between businesses partners, the more believe in each other. Consequently, tacit knowledge will be transferred and exchanged. Overall, these findings suggested that global supply chain firms need more collaboration, inter-organizational trust to share resources; explicit and tacit knowledge, to continuously improve their performance among high competitive strategy in nowadays in economy digital era.

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# Effective Use of Mobile Instant Messaging App business tool LINE@ Empirical Evidence from SMEs in Thailand

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## Abstract

Many companies in Thailand are using social media & mobile instant messaging (MIM) application tools for Social Commerce aims, and in their marketing communication channels and digital marketing, promotions & sales strategy. Some companies' aims are to directly increase sales as a result of the use of MIM, and this study analyzes the effectiveness of the use of the mobile instant messaging tool LINE@ by messaging application LINE corporation in increasing sales, and also its effectiveness of increasing customer segment marketing knowledge & preferences, customer communication, and CRM. The authors of this paper find that this commercial messaging tool, especially developed for SMEs, has marked results on customer communication and feedback, including public relations, target market and customer segmentation, and customer acquisition and sales. Moreover, the tool was found effective in integrated marketing and sales efforts in some cases. The study further showed that the best results were obtained by those companies that used the tools consistently and regularly, though consistently positive results were obtained in all cases. Furthermore, this study tangentially touches on the importance of the emerging MIM Platforms, and their complementary effects.

**Keywords:** LINE, LINE@, MIM, SMA, social media app, Thailand, instant messaging application, mobile instant messaging app

## Introduction

Globally, with the wide availability and use of smartphones, mobile instant messaging (MIM) has become pervasive, and in fact, the combined user base of the top four messaging or chat apps is larger than the combined user base of the top four social networks (BI Intelligence, 2016). The world's most widely used messaging app is Facebook-owned WhatsApp - used in 109 countries, followed by Facebook Messenger – used in 49 countries (Schwartz, 2016). QQ and WeChat are the world's 3<sup>rd</sup> and 4<sup>th</sup> most used chat apps by active users, however, their market is almost exclusively one market: China. LINE is the most used messaging app in Japan, Taiwan, Thailand, and Indonesia. Thailand is LINE's second largest market in the world after Japan (Phoosuphanusorn, 2017). In Thailand, LINE is the market leader comprising over 53% of the total population. With more than 41 million users in Thailand, 94% of them, or 44 million, are mobile internet users. However, importantly, LINE is the most frequently used of any mobile chat applications in Thailand with over 33 million monthly active users (Phoosuphanusorn, 2017; DI-Marketing, 2016). For these reasons of pervasive LINE chat messaging use by consumers, this study focuses on case study companies in Thailand using its LINE@ platform service as a Business-to-Consumer (B2C) commercial chat tool for promotion, PR, marketing and sales tool to reach and interact with their customers who use LINE Mobile Instant Messaging (MIM).

### Messaging apps have over 4 billion monthly active users worldwide

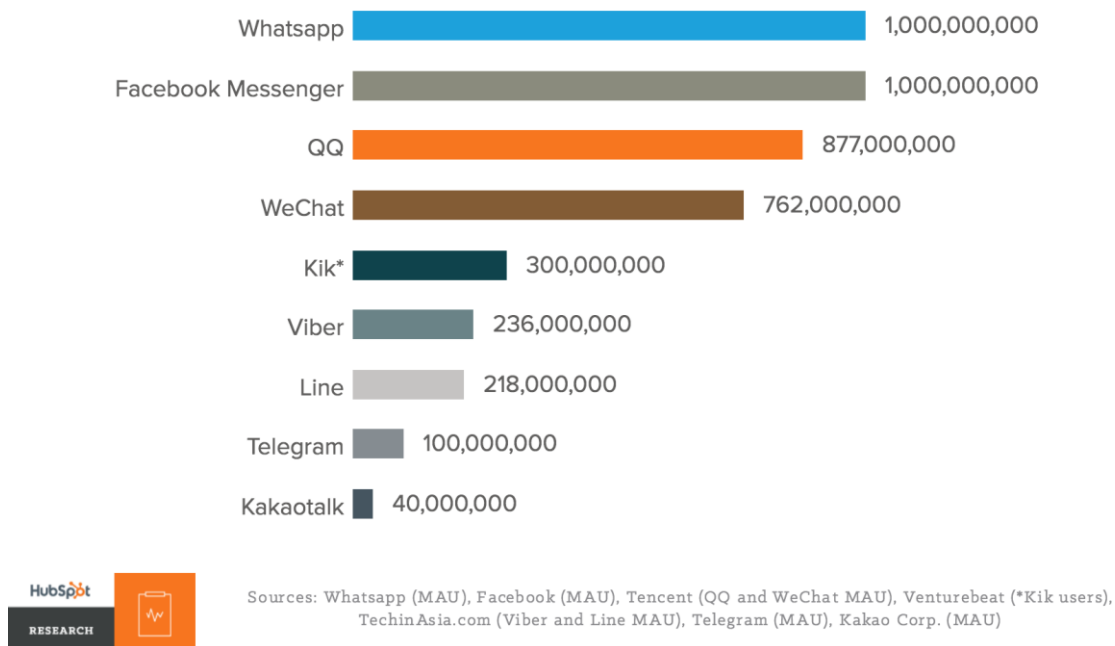


Figure 1. Monthly average users (MAUs) of messaging apps worldwide in 2016. HubSpot Research. (2016). Messaging apps have over 4B monthly active users. Retrieved April 14, 2017 from <https://research.hubspot.com/charts/messaging-apps-have-over-4b-monthly-active-user>

LINE is a product of South Korea's Naver Corporation and was developed in South Korea and Japan. As a MIM platform and application, it offers free one-to-one and group messaging, as well as free domestic and international voice and video calls, as well as numerous additional features and services, such as the LINE Official Account, LINE Shopping, LINE Business Connect, LINE@, LINE Webtoon, LINE Games, and LINE Today. These platform services are becoming the supporting pillar for LINE to become a smart portal. Line's vision is not only to bridge connection between users but to also give access to a wide range of information and services, anytime, anywhere. Since its launch in June 2011, the LINE application has grown into a global service utilized in 230 countries and ranking number one in the free app category in over 60 countries (Kim, 2016). Line's users are concentrated in four main markets—Japan, Thailand, Indonesia and Taiwan. Together, these four countries account for more than three-quarters of the service's monthly active users (MAUs) (Chadha, 2017).

LINE Corporation enjoys a very loyal network of users that creates opportunities for business looking to capitalize on this loyalty. The users in LINE's strongest four markets are more engaged than usual because so many of their friends and family use the Line app, and they use it regularly for social communications. Line stated in documents that 61 percent of its monthly active users are on the app on a daily basis, but that figure jumps to 73 percent in Line's four biggest countries. High engagement like that gives Line and its LINE@ platform service business users an opportunity to use the app as a robust social and business platform which goes beyond chat to include services and value-add beyond just messaging. That's

crucial for not only LINE making money from messaging but also for its corporate customer users to profit, as it keeps users in the Line app ecosystem (or platform) rather than in competitor app platforms (Russell, 2016). Evidence of high engagement by users in Thailand is (illustrated in figures 2 and 3), which show that LINE is the most frequently used chat app in Thailand.

This study focuses narrowly on the business mobile instant messaging (MIM) platform service tool LINE@ in Thailand. LINE@ is a service provided by LINE to allow businesses to communicate with their customers and potential customers (nominally referred to as friends). LINE@ allows businesses to send messages to all users who added their LINE@ account as a friend. Some of the important features of the service which are relevant to this study are:

- Feature allowing businesses to use LINE@ as a marketing, sales, and communication push message tool to send rich messages such as Broadcasting messages coupons & promotions, notices, event notifications, and just-in information.
- Business accounts can further communicate with clients via rich broadcast messages, 1:1 chat, and Timeline posts
- Answering of customers' inquiries in real-time through 1-on-1 chats.
- Use of the Auto Reply feature when company personnel are unavailable to respond.
- Post various types of content (photos, videos, etc.) to the business LINE@ Home page to advertise their company.
- Allowing businesses to create content that invites users to participate, such as questionnaires and polls. Business can conduct surveys on their products and services to gain information on user attributes based on gender, age, and other factors.
- Statistics allow tracking of information obtained, including checking changes to the daily number of users who have friended the company's account, responses to company's Timeline, and allowing tracking by specific time periods.

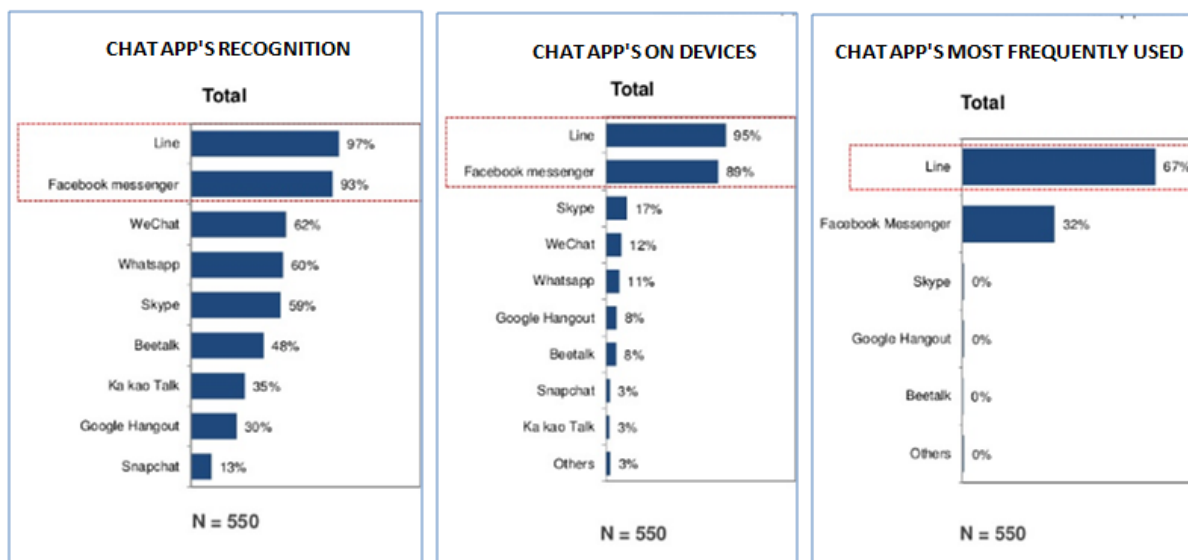


Figure 2. Survey of Chat Apps recognition in Thailand in 2016.

DI-Marketing [8] DI-Marketing. (Aug 2016). Study about Chat App Usage in Thailand. Retrieved on Mar 21, 2017 from <http://www.di-online-survey.com/en/2016/08/08/chat-apps-usage-in-thailand>

### Monthly Active Line Users in Select Countries in Asia-Pacific, Q4 2014-Q4 2016

millions

	Indonesia, Taiwan and Thailand	Japan	Total
Q4 2014	62	51	113
Q1 2015	70	54	123
Q2 2015	76	55	130
Q3 2015	81	57	138
Q4 2015	87	58	145
Q1 2016	91	61	152
Q2 2016	95	62	157
Q3 2016	98	64	162
Q4 2016	101	66	167

Note: numbers may not add up to total due to rounding

Source: Line, "Q4 2016 Earnings Results," Jan 25, 2017

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www.eMarketer.com

Figure 3. Monthly Average Users (MAUs) of Messaging Apps in Select countries in 2016.  
Chadha, R. 2017 eMarketer. (2016). Monthly Active Line Users in Select Countries in Asia-Pacific, Q4 2014-Q4 2016. Retrieved April 11, 2017 from  
<https://www.emarketer.com/Article/Lines-User-Base-Falls-Social-Messaging-Space-Gets-Crowded/1015126>

## Literature review

Three authors recently undertook and published an extensive systematic literature review of the implications of social media marketing. One of the main results of that review focuses on how companies are able to extract the maximum possible value from utilizing such channels for managing their relationships with clients. That comprehensive review confirms that businesses are increasingly and rapidly adopting effective social media and social messaging applications to communicate and market to their customers. (Alves et al., 2016).

The *Customer engagement process* can be broadly defined as repeated interactions that strengthen the emotional, psychological or physical investment a customer has in various activities between the companies and users (Vivek et al., 2012). With respect to B2C or consumer-facing businesses, many studies have successfully argued that consumer engagement is an important strategy for firms to be more competitive, and to increase sales and profits (Porter et al., 2011; Neff, 2007). Online social media serves as a technology-driven application for such frequent interaction in the customer engagement process.

The development of Instant Messaging applications with social media continued the frequency and regularity of that interaction, and with the prevalence and wide availability and usage of smartphones, *Mobile Instant Messaging* (MIM) has continued this technology-driven trend for frequent customer interaction and engagement. Companies, observing the rise and prominence of online social networks, and later mobile social networks and messaging, have been using social media for customer engagement in their communications, promotions and marketing, CRM, and sales efforts for decades. In the early years, companies mostly used these networks for building brand reputation, communicating with customers, creating customer relationship, or measuring customer satisfaction (Harris & Rae, 2009; Jansen et al., 2009).

In fact, social media was noted in the early literature as the one of the biggest phenomena in communication seen in the last few decades (Kaplan & Haenlein, 2010; Saavedra et al., 2014). Businesses have traditionally managed their customer engagement through the use of Customer Relationship Management (CRM) methods. But the rise of social media, and mobile instant messaging have given consumers and customers much more interactivity and power in their relationships with vendor companies, and businesses have to look at new models of CRM in the age of social media and MIM (Malthouse et al., 2013). Today, companies recognize that they need a social CRM strategy, and are increasing their use of social media apps; including mobile instant messaging (MIM) tools as well.

There has been a clear indication in recent literature of the rapid adoption by companies of mobile instant messaging apps (MIMs), sometimes also referred to in the literature as social media apps (SMAs). Many of these apps, including LINE@, can be used both on mobile smartphones and non-mobile devices, such as PCs (Wang et al., 2016). Furthermore, there have been studies into both the adoption and effectiveness of social media tools by SMEs. However, very little empirical research has focused on SMEs in this respect, and especially in the B2C space (Wamba et al., 2016).

In a recent study, there were documented improvements in communications and business performance by SMEs in their use of SMAs in the B2B part of their businesses. Among those business performance enhancements, specific improvements were noted in the use of SMAs for business communications, establishing visibility & deeper two-way communication among present and potential customers. Clear improvements were also noted in targeting customer needs, which leads to innovation in product and service offerings (Wang et al., 2016).

These clear developments and increasing adoption of social media apps and mobile instant messaging apps are part of an emerging and developing trend towards customer-centric digital communications strategies by companies. The tools available in social media platforms and recently developed tools, such as LINE@ provide for catering to an increasingly connected and informed customer base (Lokteva, 2015).

Facebook, as the largest competitor with the broadest penetration worldwide in the MIM space, (as noted in Figure 1) (HubSpot Research, 2016), and owner of Messenger, WhatsApp, and Instagram, presents perhaps the greatest global competitive threat to all other MIM platforms in the near-medium term. In 2016, Facebook released its 10-year strategic plan, and as (Figure 4) indicates, from 2016-2021 that plan is squarely centered on strengthening 6 elements of the platform, 3 of which are in the MIM space.

This strengthening and importance of Messenger for business use was confirmed by company management on April 19, 2017 (Frier, 2017). As (figure 4) shows, one of the 6 most important product & service strategies of Facebook until the year 2021 will be its Mobile Instant Messaging Services (Messenger, WhatsApp & Instagram). This disclosed strategy by the market leader in social media and messaging shows the level of importance Facebook attaches to the strategies using platform services like LINE is using with its LINE@ service.





Figure 4. Facebook 20 year roadmap 2016. Facebook. (2016). Facebook 10 Year Roadmap, 2016. Retrieved from <http://mashable.com/2016/04/12/facebook-10-year-plan/#BQEotp8eqGqF>

With respect to LINE, various studies have studied and documented the effectiveness of LINE's Official Account, which is used by companies to establish their official presence on the LINE platform. Unlike Silicon Valley-developed social networks such as Facebook, Pinterest, and Twitter, which let companies join for free and then try to sell them Ads, LINE charges for official accounts on the platform. In a recent study in Taiwan, one of LINE's major four country markets, a university which set up an official account was successful in attracting more friends than any other university or college account in Taiwan. In that Taiwan study, the researchers found, among other relevant findings, insofar as in communications, that use of LINE reinforced the horizontal connections between different units of the University and publicized information to maintain internal and external relations. The LINE Official Account was found to have been able to achieve timely, two-way, and diverse interactions, and to be an important communications tool (Tien & Yen, 2016).

Similar to LINE's Official Account, but designed for SMEs and to be most cost effective for targeted use, LINE@ also allows for commercial messages to show up in the same streams as private chats, (only after a LINE user has chosen to follow a particular company or brand), and gives the SME a higher profile and their message a more personal appeal and greater sense of urgency than other forms of social marketing such as Facebook Ads and Twitter's promoted tweets. The company using LINE@ gets a direct connection to the customer. It's very powerful and offers the potential to be very compelling (McCracken, 2015). Furthermore, even though both LINE and WeChat offer language and other localization for each local market they operate in, LINE has escalated the localization concept to specifically tailoring its service in every country it enters. This includes special culture-specific stickers and other market-specific tailoring (McCracken, 2015). These localization, customization and market-tailoring aspects contribute to the personal, direct connection that the messaging app has with its users in each market area, and by extension, the companies that use LINE@.

In Thailand, one recent study found that many Thai SME companies considered social commerce platforms, including Facebook, LINE, and Instagram, supportive to their companies in terms of communicating with customers, reaching new market segments, support marketing activities and sales, and that trust, as an antecedent factor, is the most influential factor affecting both the use of social commerce and user satisfaction. Thai users are also concerned with the reliability, ability, and ethics of the system. (Vongsraluan & Bhatiasevi, 2016). These findings in Thailand, combined with the findings in the literature above, continue to point to the compelling & unique nature of social messaging platforms in dealing with customers, and in specific, the targeted appeal of MIM platforms.



With regard to the increasing importance of the platform business model (or ecosystem) in social marketing and messaging, this exact issue with respect to LINE has been recently studied. As the author of that study noted, “LINE is particularly impressive as a new platform business model because it is one of the first companies to establish a platform strategy in the MIM market, which is rapidly growing within the mobile industry.” This business model creates value for both LINE itself and its business customers (LINE platform business users). The LINE@ tool, in utilizing the LINE platform provides its MIM service to end-users (demand side) for free and then offers this secured pool of end-users to developers and content providers (supply side) to induce them to participate on the platform (Kim, 2016, pp. 6-10). Recent pronouncements by company management have verified the intention by LINE to pursue and expand the LINE platform business model and enable SMEs to leverage its power through the business tools such as LINE’s Official Account, and LINE@. In addition to the above studies documenting the effectiveness of the platform business model, LINE’s success in the Thai market has been attributed to its simplicity and cost savings. (Phoosuphanusorn, 2017).

### **Procedures for Data Design, Methodology, and Theory**

As this research aim is preliminary descriptive research based on multiple case study methodology as described below, no separate conceptual framework or theory has been employed. It has been recommended that qualitative research should follow a four step approach that contains decisions regarding (1) the research topic, which should be new or under-researched; (2) research methodology; (3) data and transparency of methods; and (4) a theory that properly serves the research aim (Birkinshaw et al., 2011).

#### **(1) Research topic**

The topic of using social media applications and tools by business has been studied, but rarely studying the actual business practice and purposes of MIM used in businesses themselves, and there has never been a published study of the relatively new tool LINE@ by LINE Corporation.

#### **(2) Methodology**

The intention of this paper is to explore to what extent the MIM application LINE@ is effective when used in Thailand by SMEs. To explore this situation, a case study approach is most workable (Stake, 1995). In fact, this study employs a multi-case study design (Yin, 2008) precisely to study Thai companies’ actual practice in Thailand in using LINE@. This paper utilizes the ideas of (Eisenhardt & Graebner, 2007) who maintain that the process of using multiple cases can lead to theory building opportunities. By further using replication logic, which dictates that over multiple cases to explore the same phenomenon, there is a greater probability to find repeatable patterns that result in some kinds of generalizations, that therefore patterns and theory that can be revealed. While traditional quantitative research can reveal some patterns, a case study can examine the depth of context and usage in actual business practice.

Moreover, due to the newness of the MIM tool LINE@ and the highly confidential nature of companies’ communications, CRM, marketing and promotions plans, proper quantitative methods are not available, except as noted in the literature above. Combined with the available quantitative studies, these case study patterns can reinforce and confirm those results. This research design was chosen here precisely because of the difficult nature of obtaining confidential and sensitive strategic information unless directly from the users of the

service (the case study companies herein); do to the newness of the studied platform service LINE@; and the availability to place the researchers as interviewers in a qualified and trusted relationship, over a meaningful period of time. Moreover, qualitative case study on this topic can best be undertaken by those situated in Thailand to observe and study the case study companies, and conduct interviews about their business practice.

### **(3) Data collection methods**

The data sourcing process for multiple firm case studies follows the principles of purposeful or criterion sampling choosing a sample that has the characteristics relevant to the research question(s). Criterion sampling involves the selection of cases that meet a set of a priori criteria important to the research (Dimitratos et al., 2010). In this narrow project, the investigated firms had to (1) be based or operate in Thailand, (Thailand was chosen as relevant because Thailand has the second highest LINE application users in the world, and because LINE@ is a relatively new tool that was launched in Thailand among the first countries chosen), (2) use both offline and online communications, CRM, marketing, and promotions tools and methods, (3) have a business model that provides products or services directly to consumers (as consumers are the largest users of LINE application), and, (4) devote meaningful time, personnel and resources to their online tools.

Additionally, though not a specific criterion requirement, the specifically chosen firms for the case study, though all serving consumer and business customers, each operate in a different area. This was deemed important to study if there are consistencies of findings across business verticals. In each case, the researchers had full access to in-depth interviewing of responsible managers and executives. As the criteria were very specific, sensitive as to each studied firm's business strategies, and required confidentiality to observe and study, the researchers executed a non-disclosure Agreement with LINE Corporation as well as assurances of confidentiality to both LINE and its client companies who are the case study subjects of this study.

In addition to the above specific qualifying factors, in order to ensure reliable, valid, high quality data collection, case study companies were carefully chosen and vetted before introductions so as to represent cross sections of diverse businesses and to also represent willing and engaged participants in the study. As a result, the identities of all the case study companies are undisclosed in this study. Secondary information and primary information was collected about each company. Several rounds of open-ended, semi-structured interviews, structured, and in-depth interviews were conducted over 9 months at the beginning of the study and near the end of the study in an effort to understand the changes observed over time, and reasons for the changes.

All interviews were personal interviews that were conducted in Thailand, in both Thai and English languages, in-person with key responsible managers and staff using the studied LINE@ platform service. Four firms were initially selected, but one firm exited the study so those results are not included as they are not complete. The sample of three final firms located in Thailand seems relatively small but reasonable considering the precise and narrow selection standards (see the 4 criteria listed above) and the fact that the research topic involves highly confidential information rarely disclosed to outsiders in the course of business. Furthermore, the interviews and data collection occurred during the period from mid-2016 to mid-2017, so the results show contemporary and recent results collected over a sustained period of time.

Moreover, this precise topic is under researched so far. (Yin, 1994) recommended at least three to four cases for multiple case study research with literal replication. This study initially started with 4 cases, but one of the company cases withdrew so the final sample is 3 cases, which is sufficient.

*Data Analysis Methods.* All the case study companies were asked both a series of specific questions which were the same for all case study companies, as well as a series of tailored questions relevant to each case study company's specific business. The questions were developed to elicit both close ended and open ended responses among a set of marketing, sales, customer relationship management, and communications issues common to all industries. These questions were asked to determine whether the case study companies experienced tangible improvement or results in any of the questions areas.

These series of questions were administered both at the beginning and end of the study for comparison purposes. The interviews were also semi-structured in that the researchers engaged in deeper exploration with the companies on tangential points, common problems and issues that were related to the main topics. Both content and grounded analyses were conducted on interview answers and in-depth interviews, with patterns, common and emergent themes identified and analyzed.

#### **(4) Theory and research aim**

When using multiple-case studies, each case must be carefully selected so that it either: 1) predicts similar results (literal replication); 2) predicts contrasting results but for predictable reasons (theoretical replication); or 3) if all cases turn out as predicted, there is compelling support for the initial propositions. Replication logic procedures assume a fundamental theoretical framework for research (Yin, 2008). Thus, the underlying logic is replication, that is, the idea of treating a series of cases as a series of experiments with each case serving to confirm or disconfirm the hypotheses. In replication logic, cases which confirm emergent relationships enhance the internal strength, consistency, validity and generalizability of those relationships.

The major research aim of this paper is the hypothesis that MIM tools for business, using dominant platforms in specific markets with deep user penetration of the underlying MIM application can result in specifically measurable positive results in customer communications, increased sales, more targeted marketing and customer segmentation, and promotions. This hypothesis has not yet been documented in the literature.

#### **Findings & Discussion**

In order to utilize replication logic in multiple case studies, each case must be carefully selected so that it either (a) predicts similar results or (b) predicts contrasting results for reasons that can be anticipated (Yin, 2008). In this study, all companies selected did produce similar results to varying degrees, so that this study meets the test under replication logic criterion (a) above. Thus, according to Yin, this study is designed to predict similar results. Table 1 displays an overview of the firms selected for the study.

Total friends, (customers or potential customers) of the 3 case study firms numbered 25,000 collectively at the beginning of the study, and 36,332 at the conclusion of the study. A fourth case study's results were not included because the company withdrew from the study before the results could be compiled.

Table 1. Classification of firms selected for multiple case study

Firm Industry	Case	Annual US\$ million *(2016)	Sales million	Employees *(2016)	Employees in Thailand	Headquarters
1. Roaming Telecom Service company		Undisclosed		<100	<100	Thailand
2. Amusement Park		Undisclosed		<100	<100	Thailand
3. 5 Star Hotel F&B (largest global hotel operator)		10,000		240,000	Undisclosed, one of 60 hotel properties in Thailand	France

\* Measured at the time the specific case studied

Table 1 provides the classification of firms selected for multiple case study. Semi-structured interviews were conducted at the outset of the study, and also at the end of the study period, which interval averaged 6 months/case. The increase of potential customers and customers (friends) are shown in table 2. The cases were analyzed according to the questions as replicated in Table 4.

Table 2. Analysis of friends (customers and potential customers) examined

Case Analysis (n=3 cases)	Sample Mean*	SD**	Min	Max
a) Number of friends at beginning of study	8,333	20.82	6000	10000
b) Number of friends at end of study	12,111	5334.86	6832	17500

\* a) Based on 25,000 friends start of study, and; b) Based on 36,332 friends end of study

\*\* SD=Standard deviation

As shown in Table 3, though the interviews were extensive, primary relevant examination was along five question parameters, labeled A-E, as follows: 'Has your number of friends increased from the first interview? As subject A, 'Have you increased directly measured sales as a result of LINE@?', as subject B, 'Has LINE@ helped you to research and target customers more precisely?', as subject C, 'Is LINE@ one of your main customer communications and marketing tools' as subject D, and 'Do you plan to increase your use of LINE@ from present level? as subject E.

Table 3. Research Findings results parameters

Interview Analysis (n= 3 cases)	Combined Sample % answering positive	Actual of Total positive
A) Has your number of friends increased from the first interview?	100	
B) Have you increased directly measured sales as a result of LINE@?	100	
C) Has LINE@ helped you to research and target customers more precisely?	100	
D) Is LINE@ one of your main customer communications and marketing tools?	66.6	
E) Do you plan to increase your use of LINE@ from present level?	75*	

\* Comprising two positive responses, and one qualified positive response assigned a value

These research results from actual companies using LINE@ in Thailand, verify, confirm and clarify the trends we see in the literature. The results show that not only did every case study company increase friends (customers and potential customers), but that they did so in varying degrees for predictable reasons. As in the other criteria, those companies that actively and regularly use the MIM tool LINE@ enjoyed the greatest percentage of increase of friends, and in fact in the company with the most consistent use of the tool, friends increased by 95% during the six month study period. However, the study also shows that even those companies who do not commit a sustained level of effort to using the tool, enjoyed increases in friends. Following replication logic, all the sample firms conformed in producing similar results, with the only variables being the size of the percentage increase in friends, and in plans to increase usage of LINE@. In both cases of slight variance, the percentages were lower for anticipated reasons. In the case of increases of friends, those companies that continually used the LINE@ tool without interruption, experienced the greatest increases.

Furthermore, and perhaps most importantly, all of the case study firms experienced increased sales from their use of LINE@ which they were able to directly attribute to the use of LINE@ through the measuring tools provided as part of the LINE@ service package. Among the reasons cited for the directly attributed increase in sales is the ability to research customer intentions and preferences through the use of the research functions of LINE@, which allowed them to target more precisely their market segments, and therefore, design targeted marketing and sales programs. Among the relevant findings, include the following responses from case study firms:

**[CEO, Roaming Telecom Service Firm (Thailand private company), Firm 1]**

*We have integrated other elements of the LINE platform to drive sales via the LINE@ application. For example, we have set up our new YouTube TV show with its own LINE@ account to drive customers to the LINE@ platform. LINE@ allows us to discover the age and sex of our customers so that we can custom design targeted sales programs for these groups. Our LINE@ promotional activities directly lead to additional sales which we have verified both offline as well as through the tool. Line@ also allows us to up-sell with many customers, offering a way to increase revenue per user. We increased friends 95% in six months, and are very close to being the number one company on LINE@ in our industry segment.*

**[CEO, Amusement Park, (Thailand private company) Firm 2]**

*One of our goals was to double friends and customers from 10,000 to 20,000 during the period of the study, but we only succeeded in increasing to 12,000 due to service-disrupting construction and improvements we are making to the park. The push broadcast promotions on LINE@ are one of the valuable features on the LINE platform for us that have helped increase sales. The research functions on LINE@ allow us to measure precisely our LINE@ users and to also gauge effectiveness of other online and offline communication and marketing efforts.*

**[Director, F&B, Hotel, (single location 5-star hotel, part of one of world's largest hotel chains) Firm 3]**

*As a single property in a global hotel chain, we use LINE@ only for additional promotions of our Food and Beverage outlets. As these are profit centers, we must use additional tools beyond what global corporate provides for us to attract local customers. We have discovered that LINE@ is particularly effective on low traffic or low customer F&B days or periods. By using LINE@ targeting promotions during these times, we are able to supplement revenues we would not normally be able to do. Checking and measuring statistics in LINE@ is even more important for us now, as we also have to coordinate and measure our hotel loyalty program members, and our credit card and corporate and travel voucher programs, as well as other integrated marketing efforts.*

The two criteria in which we saw variance of importance (though for predictable and explainable reasons) among the case study firms were regarding whether the tool LINE@ has become one of the firm's main customer communication and marketing tools, and whether they plan to continue its use at current levels or increase use of LINE@.

Concerning the question of whether LINE@ has become one of the company's main customer communication and marketing tools, the results were positive in 2 of the 3 case study companies, and in fact in one of the companies, LINE@ has become the main tool and platform for all customer communication and marketing. This result confirms the literature on platform importance. For the one case study business where the answer was negative, it can be explained by two factors: 1) this case study company, though acting as a stand-alone SME in its use of LINE@, is part of a multinational company, with competing global communications and marketing directives. In this case study, the use of LINE@ was very narrow but effective, in increasing traffic and customers to the hotel's F&B outlets.

Finally, the last question of whether the client case study firms intend to increase the use of LINE@ or not, we have a less than unanimous result, though still compelling. Two of the case study companies enthusiastically stated their intentions to increase its use, and the one slightly non-conforming case study company stated their intention to increase its use, but only in narrow, targeted promotions of one part of its business, as stated above, due to global corporate communication and marketing integration issues.

**[Vice President, Roaming Telecom Service Firm (Thailand private company), Firm 1]**

*LINE@ is an important part of our both our integrated customer communications and marketing strategy and as a standalone product. We use the MIM tool as both standalone and complementary to our other channels and tools. We use many of the features of LINE@ and the platform abilities of LINE, and will increase our use as appropriate.*

**[CEO, Amusement Park, (Thailand private company) Firm 2]**

*LINE@ has become our main and most important tool for customer communications, promotions, and marketing. Because of the high penetration of LINE users in our target markets, LINE@ is an optimal tool for us. We use the tool complementary to other tools, as an integrated communications and marketing program, and it is not used as a standalone tool.*



**[Director, F&B @ Hotel, (single location 5-star hotel, part of one of world's largest hotel chains) Firm 3]**

*Because of our global parent policies, and our many other channels of co-marketing and promotions, LINE@ is not a main part of our overall customer communications, and marketing plan. However, because of its targeted effectiveness, we do use LINE@ in tightly focused promotional activity which we have seen lead to direct additional sales. As we have recently had a company reorganization, we do not have plans to increase our use of LINE@ until our company policies become clearer.*

**Conclusions, Limitations and Implications**

*Conclusions.* These research results in business practice in Thailand, Southeast Asia, and one of the four major markets for LINE support the prevailing views and global trends in the literature of the growing importance of MIM for companies, especially SMEs. They further validate some of the reasons for the rapid and increasing adoption by firms of these social media tools. Most importantly, in the limited case studies herein, concrete and meaningful results were obtained by the companies that used LINE@ in a regular and frequent manner. The researchers' aims and objectives were to study and analyze the effectiveness of the use of the mobile instant messaging tool LINE@ by SMEs and companies in Thailand. This study successfully showed that the results from companies using LINE@ are increased sales, increased customer engagement & communication, and generally, enhancement of other online efforts as well as offline marketing and promotions efforts.

*Results Somewhat Consistent with Previous Research.* The results of this study, even though unique in studying the LINE@ platform service of LINE, are consistent with findings in previous research with respect to the effectiveness of other aspects of LINE offerings. For example, as cited in the literature review herein, various studies have documented the effectiveness of LINE's Official Account (Tien & Yen, 2016). Furthermore, in Thailand, one recent study found that many Thai SME companies considered the LINE app supportive to their companies in terms of communicating with customers, reaching new market segments, and supporting marketing activities and sales (Vongsraluan & Bhatiasavi, 2016). Finally, research in South Korea (Kim, 2016, pp. 6-10) also confirms the effectiveness of the platform approach, which was also observed in this study of LINE@.

As a result of the research findings in this study, combined with the existing literature, and applying the theory of replication logic, it is reasonable to conclude that a sizeable percentage of SME businesses in Thailand, and perhaps in the other 3 major markets for LINE, Japan, Taiwan & Indonesia could similarly benefit from adopting and actively using LINE@. Importantly, the results of this study may be applicable to other MIM providers that have deep penetration and numerous monthly average users (MAU) in any country and with similar rich platforms and MIM features, but may not be applicable to those that do not share these characteristics. This study suggest that other companies should explore further use and development of their MIMs to produce similar results.

*Limitations of Conclusions and Implications.* It could be argued that the firms selected in this study are not representative of all commercial firms operating in Thailand, SE Asia, or globally, and that is strictly true. The case study companies represent only a few of the many customer-facing industries and business models. Furthermore, the replication logic model (Yin, 2008) employed in applying these research results to diverse businesses is sound, but would require more empirical studies to determine broader conclusions. However, though the case study was limited in scope, these case study firms were intentionally chosen as companies that deal with consumers who use LINE but that are dissimilar in their products or service, business models, and customers. It could be argued that, therefore, similar results would be

forthcoming for many disparate companies, subject to the conclusion limitations noted in the above paragraph as to large numbers of MAU, and as to features of the tool. Furthermore, one of the three sample firms was dissimilar the most in that it was not strictly an SME, but rather, part of a large global chain of hotels. However, for purposes of its use of LINE@, the company was chosen because its use of LINE@ was strictly limited to attracting local customers and others in increasing sales of the Food and Beverage parts of only one hotel, which smaller-scale localized focus makes it resemble an SME's use more closely. More study needs to be done of firms using LINE@ in Thailand as well as in other countries. Importantly, more study needs to be done of firms using the competitor's MIM products in other countries and for business-to-business commercial application as well.

Certainly a more inclusive Thai, Asian, and global study needs to be done regarding the use and efficacy of MIM and accompanying platforms that are emerging. Finally, again as a cautionary note for future studies, one could question the efficacy of the results in any market where the MIM platform did not have the requisite scale, in terms of Monthly Average Users (MAUs), and it would be expected by these authors that the results may be less effective where the scale of MAUs on any MIM platform did not reach a certain number or percentage, though we have not studied nor defined what that percentage might be. In this study, this factor was not an issue because LINE has massive and dominant penetration, adoption and high MAU of the consumer market.

*Implications.* Notwithstanding the above, the implications for businesses using MIM in platforms where there are large numbers of potential customers are considerable. These implications have been shown with respect to MIM messenger apps which are dominant in their markets. If most of a firm's potential target consumer customers are using a particular mobile instant messenger application in their daily life for social and other purposes, it follows that these customers would prefer to use that same application in their interaction with commercial providers of products and services. There may be one caveat to this assumption that customers prefer to use the same chat application for both personal and business communication: in the study, though not formally a research question and findings parameter, it was observed in some of the case study companies that, because LINE@ offers a feature to users to block their company friends messages, the case study companies developed strategies to avoid being blocked by customers by ensuring their ongoing communications had value to their customers, and were not intrusive or annoying. This could be a further refinement of the value chain where customers can clearly communicate their desires through the use of blocking communications, as well as allowing communications and creates the potential for additional rich research about customer retention and other aspects of customer engagement.

The literature review further confirms that users of a particular favorite MIM application are highly reluctant to change, due to the fact that their social networks, information networks and communications with businesses are becoming centralized on one MIM platform. Furthermore, this lends weight to the trend that existing dominant MIM platforms in each market have an inherent competitive advantage or head start on other competitors (Tang & Lee, 2015; Gloria & Achyar, 2016). This unique aspect of MIM loyalty is striking in cases like Blackberry's BBM Messenger in Indonesia. As of April 2016, the app was installed on 87.5% of all Android devices in the country, far surpassing any other country in terms of BBM use. In fact, when examining the install rate in other countries, where it might be considered obsolete, it illustrates this Indonesian loyalty to a platform that most of the world is no longer using. In the U.S., only 0.42% of Androids had the BBM app, with Australia and the UK showing slightly higher use (Schwartz, 2016).

This MIM user loyalty means that companies like LINE, which are dominant in certain markets, should devote considerable attention to capitalizing on their dominant position with respect to their business MIM products and features. Similarly, competitors like WeChat, WhatsApp, Facebook Messenger, and the others that are dominant in some markets should emulate this strategy and either strengthen and feature-enrich their existing commercial MIM products, or develop new ones that incorporate the features of LINE@ in a platform approach. In this respect, LINE@ can be perceived as having a first mover advantage in multiple markets, at least with respect to SMEs. It was noted in the literature that WeChat is perhaps the greatest innovator in respect of features on the portal, but due to the fact that its users are largely confined to one country, China, and due to the difficulty of changing users' preference of MIM, this creates opportunities for other MIM portal firms to innovate to forestall competition and defend their important markets where they already enjoy large MAU and market share percentage.

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# The Social Marketing Responsibility Modeling for Thai Entrepreneurs' Manufacturing Industry

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## Abstract

The research was aimed to study (1) the entrepreneurs' characteristics of Thai manufacturing industry toward social responsibility (2) the level of importance of social marketing responsibility of Thai manufacturing industry's entrepreneurs (3) the partial least squares path modeling of social marketing responsibility for Thai manufacturing industry's entrepreneurs. The research tool was the questionnaire for quantitative method collecting data from 435 Thai entrepreneurs' manufacturing industry. The data were collected using analysis of partial least squares path modeling. The results indicated that the average registration capital was 15.71 million baht, average ratio of international investors was 20 percentage, average of employees was 58 and time of operation was 12 years. Most of manufacturing setups have complied with industrial standard (2014). The entrepreneurs' social marketing responsibility are overall at high levels. The factors had convergent validity because not only the construct reliability was more than 0.60 but also the factor loading between 0.414-0.918 was more than 0.40.

**Keywords:** Partial Least Squares Modeling, Social Responsibility Marketing, Manufacturing Industrial Plant.

## Introduction

Today's world has been continuously developing in various fields especially with regards to the development of the industrial sector that has expanded its production capacity and has grown rapidly; causing many problems especially environmental pollution problems caused by industrial operations that have affected the surrounding community and have resulted in a the industrial sector having a negative image. In the past, most entrepreneurs usually considered profits in the form of money and may have done anything to make the investment have worthy returns. This regardless of whether it was by legitimate and ethical means. The past actions have resulted in effects from violating or encroaching natural resources or on society both by direct and indirect means whether it is exhaustible natural resources, natural disasters or even factory opposition from people by agitating against entrepreneurs who bring good prosperity and economy into the community or country regardless of whether such entrepreneur has a good or bad reputation (Good Governance Committee and Chamber of Commerce Responsibility, 2010).



For this reason, the world society recognizes the importance of encouraging the industrial sector to operate eco-friendly business and have a corporate social responsibility marketing area including good corporate governance to strengthen the image of the organization in order to be accepted and trusted by the community, its society and potential customers for development, sustainably and a happy life together. Moreover, this is also preparation for the industrial sector (Nonthanatorn, 2010). Entering into international standards about ISO26000: Social Responsibility so that the industrial sector can maintain economic stability and build a free competitive system that is fair and connects to a network of products and services production. Marketing on intelligence base, innovation, creative thinking and eco-friendly can compete with competitors in the world trade market including preparation for entering the ASEAN Economic Community by the end of 2015 (National Sciences and Technology Institute, 2009; Beise-Zee, 2011).

The Department of Industrial Works, Ministry of Industry is regarded as an agency that's main mission is monitoring and supervising industrial operations under law by considering safety and the environment. Another important mission is encouraging entrepreneurs to operate business with social marketing responsibility that considers the quality of life of staff, community and resources that have to develop and grow together with the business (Department of Industrial Works, 2015) as the Ministry of industry has determined the green industry policy to promote the industrial sector to become environmentally and socially friendly, promote good, creditable and reliable images from people for developing coexistence between industrial sectors and community sustainably.

Therefore, the Department of Industrial Works has determined activities for encouraging the industrial sector to express the standard of social marketing responsibility of industrial entrepreneurs to social marketing avenues so industrial entrepreneurs have social marketing responsibility, can operate the business together with their communities and will be sustainably accepted along with industrial business development has the competitive potential for being strong and sustainable developed ASEAN Economic Community (AEC) (Department of Industrial Works, 2014).

As mentioned above, we have recognized the importance of the study of the marketing of corporate social responsibility of Thai industrial entrepreneurs on Least Square Path Modelling. The findings can be applied to assess the social marketing responsibility of Thai industrial entrepreneurs as well as how relevant agencies can use the measurement model developed from this research to determine social marketing responsibility for specific groups of entrepreneurs such as products from plants (Basic Agro-Industry), fabricated products, vehicles and equipment including vehicle repairs (Transport Equipment) including other manufacturing industries.

### **Research Objective**

1. To study the characteristics of Thai industrial entrepreneurs towards the marketing of corporate social responsibility.
2. To study the level of importance of social marketing responsible activities of Thai industrial entrepreneurs.
3. To study the Partial Least Squares path modeling, the social marketing responsible activities of Thai industrial entrepreneurs.

## Literature Review

The concepts related to the marketing of corporate social responsibility; social marketing strategy of Thai industrial entrepreneurs that impacts on society and the environment and are caused by decisions and implementation of organizations with transparency and ethics (Corporate Social Responsibility Institute, 2009) leading to sustainable development, the organization should focus on 7 principles (Department of Industrial Works, 2015) which are (1) accountability (2) transparency (3) code of conduct (4) acceptance to benefits of stakeholders (5) respect the law (6) respect international practices and (7) respect human rights. The activities of marketing corporate social responsibility of organizations have 7 formats (Kotler & Lee, 2005; 2009) that are encouraging awareness of social problems, marketing related to social problems, social marketing of the organization, charitable donations, being volunteers for the community, implementation with social responsibility, development and distribution of worthy and supplying good quality products or services to people in society. All of these two principal criterion being marketing responsibility activities as basic need for independent variables. Noticeably there are some variables showing little distinction between factor number' 6 and 8 item in order to get the solid and validated responses.

Caused-related social responsibility marketing activities are increasingly becoming a meaningful part of organization marketing plans. Building a cause related social marketing responsibility activity, marketing managers should select a cause that makes sense to the consumer to be a partner in the alliance and limit any self-serving promotion of the cause-related marketing alliance to the target consumer population (Gupta & Pirsch, 2006). Organizations have become increasingly active in developing relationship between their brands and popular causes in such areas as the environment and health issues (Till & Nowak, 2000) as important strategic concerns for business.

Trust can have a significant effect on the consumers' intentions to support organization adopting a social or environmental cause (Nowak, Fucciolo & Ponsford, 1999). Consumers may become quite skeptical of cause-related marketing claims when advertising and source credibility are questioned (Thorson, Page & Moore, 1995) as well as affect consumers' overall attitude toward the sponsoring organization or brand. In the increasing debate on social marketing responsibility for organization, one key question is that of whether or not consumers are willing to reward good corporate behavior through their consumption decisions (Moosmayer, 2008; Moosmayer & Fuljahn, 2010). In all sectors of economic activity, the consumer plays a major role. The perception of consumers of the social responsibility activities is an important marketing research for the organizations who invest in these activities (Hassan, Shaw, Shiu, Walsh & Parry, 2013)

Consumers distinguish the environmental aspects on ecological and recycling. It is observed with confirmation that the final disinvestment stage of the consumer decision process play on important role in consumer decision (Rodrigues & Borges, 2015). Carroll (1991) model conceives social marketing responsibility (SMR) is a construct made up of four dimensions economics, legal, ethical and philanthropic. While European Commission conceived SMR as a concept covering three dimensions: economic, social and environmental considerations. Over the past three decades, SMR has been largely, recognized as a core element of corporate strategy in the global economy, thoroughly researched by scholars and extensively exploited by organizations as a businesslike application that cultivates sustainable competitive advantage (Demetriou, Papasolomou & Vrontis, 2010). Besides that a strong SMR generates and ameliorates trusting relationship between the multinationals and their stakeholders, a fact that results in strengthening customer loyalty (Torres, Bijmolt, Tribo & Verhoef, 2012)

The perception of consumers of the social responsibility activities they allow to explain the behavior of loyalty (Du, Bhattacharya & Sen, 2007), the ability to say more for the product or brand (Creyer & Ross, 1996) and justifying the increase of the organizations financial performance (Peloza & Shang, 2011). Brink, Odekerken-Schroder & Pauwels (2006) study on consumers reveal and effect of strategic and tactical cause-related marketing role of consumer involvement with a product on the relationship between cause related marketing. The results show consumers perceive a significantly enhanced level of brand loyalty as a result of strategic cause-related marketing as long as commitment to this campaign as well as the campaign is related to a low involvement product. Consumers do not show an important impact of tactical caused-related marketing campaigns.

In practice, Social Marketing Responsibility (SMR) is used widely for corporation's strategy (Pharr & Lough, 2012) especially for specific product campaign (Liston-Heyes & Liu, 2010) and digital society at large (Epstein, Nisbet & Gillespie, 2011). The product can be sold effectively through marketing activity (Hassan et al., 2013) and ethics and commitment (Rodrigues & Borges, 2015). The corporations' use SMR in advertising for public inform (Menon & Kahn, 2003) and consumer right exposition (Horne, 2013) but the strategic budget is still the condition to implement any social marketing responsibility (Pharr & Lough, 2012).

For this advanced statistical research methodology for developing Partial Least Squares path modeling (PLS), marketing social responsibility of Thai industrial entrepreneurs uses technique of Partial Least Squares path modeling: PLS path modeling. PLS is Variance-based SEM (VBSEM) and may be called Component-based SEM developed according to Ordinary Least Squares (OLS) that uses Principal Component Regression (PCR) as a tool according to Least Squares. It is a software that was developed for solving research problems and use Covariance as base (Covariance-based SEM or CBSEM) for example LISREL, AMOS analysed by Maximum Likelihood (ML) that requires very large size of samples, data that must be normally enumerated and have theory that strongly supports framework due to focusing on confirmatory analysis.

Generally, CBSEM gets difficult answers (which is seldom Convergence) so it must adjust the format a lot so that the empirical information will be in harmony with the conceptual framework that was developed from the theory and literature (Piriyakul, 2010). Therefore, PLS is software that can solve all problems as above and the sample size can be from 30 units up. It does not need to be normal distribution, researchers can combine theory and imagination as a conceptual framework as well as it can be both confirmatory analysis and exploratory analysis. Moreover, it has been found that the empirical data is always consistent with conceptual framework (Convergence) (Martin, 2008). Currently, there are various types of software that can analyse PLS depending on each manufacturer such as WarpPLS, SmartPLS, PLS-Graph and Visual PLS.

However, in this research, the researchers have used WarpPLS because the program is completed as well as the model image clearly shows the influence of variables clearly. Therefore, it can be concluded that the literature review by studying related concepts as a confirmation of an indicator of marketing social responsibility of industrial entrepreneurs by using advanced research methodology with analysis technique of PLS path modeling can determine the conceptual framework of this research as follows:

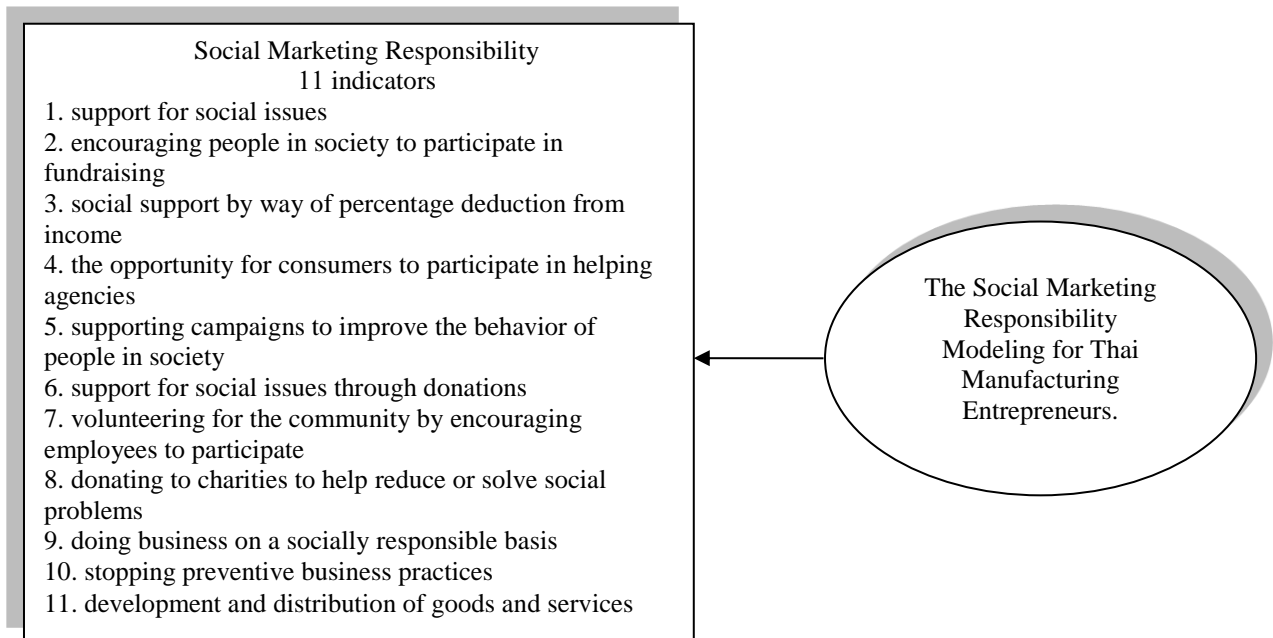


Figure 1. A Conceptual Framework

## Research Hypothesis

There are relation between social marketing responsibility: (1) support for social issues, (2) encouraging people in society to participate in fundraising, (3) social support by way of percentage deduction from income, (4) the opportunity for consumers to participate in helping agencies, (5) supporting campaigns to improve the behavior of people in society, (6) support for social issues through donations, (7) volunteering for the community by encouraging employees to participate, (8) donating to charities to help reduce or solve social problems, (9) doing business on a socially responsible basis, (10) stopping preventive business practices and (11) development and distribution of goods and services.

## Methodology

**Type of research** is survey and development research by using a questionnaire to explore and develop indicators on PLS path modeling with secondary order confirmatory factor analysis.

**The population** used in this research was made up of industrial entrepreneurs in Thailand at the end of 2014, totalling 141,247 entrepreneurs (Department of Industrial Works, 2016). The research samples calculated by Thamson (1992) sample size used in this research is at least 400 respondents. Selection of sample uses Multi-stage Sampling (Cochran, 1977) as follows: Step 1: Probability sampling with stratified random sampling by classifying Thai industries according to 21 major categories of industries, Step 2: Non probability sampling with simple random sampling by drawing from the specific list of industrial entrepreneurs in Thailand or an authorized person from each one in order to have one sample that included 435 respondents as calculated as the representative of each factory as Table 1 indicates.

Table 1. Population and Sample Used in the Study were Classified by Major Industries

Main Industry Division	Population (Size)	Sample (Person)	Size
1. Basic Agro-Industry	44,165	135	
2. Food	8,341	26	
3. Beverage	634	3	
4. Textile	2,987	9	
5. Wearing Apparel	2,410	8	
6. Leather Products & Footwear	1,109	3	
7. Wood & Wood Products	6,644	21	
8. Furniture & Fixture	4,331	13	
9. Paper & Paper Products	1,346	4	
10. Printing, Publishing, Allied Products	2,576	8	
11. Chemical & Chemical Products	3,399	11	
12. Petroleum Products	678	2	
13. Rubber Products	2,298	8	
14. Plastic Products	6,284	20	
15. Non-metal Products	7,431	23	
16. Basic Metal Products	1,199	3	
17. Fabricated Products	12,970	40	
18. Machinery	5,532	17	
19. Electrical Machinery and Supplies	2,822	9	
20. Transport Equipment	10,472	33	
21. Other Manufacturing Industries	13,619	41	
<b>Total</b>	<b>141,247</b>	<b>435</b>	

Source: Department of Industrial Works (2016)

**The research tool** used was a questionnaire that asked 435 entrepreneurs or authorized persons or at least 400 samples regarded as a criteria. The type of inquiry is self-administered questionnaires that consists of 2 major parts that are part 1: basic factor of Thai industries will be check list and fill in the blank, part 2: social marketing responsibility of Thai industrial entrepreneurs will use a 5 rating scale, Likert (score of the least is 1, less is 2, fair is 3, much is 4 and the most is 5). The interpretation on each level will use 0.80 as interval of class interval (Khuharattanachai, 1999).

### Assessment of Research Tools

1. Content validity assessment from 3 experts (Department of Industrial Works, Ministry of Commerce and Ministry of Industry) (Rowinelli & Hambleton, 1977) by using an index of consistency between the content in question and set objectives (Item Objective Congruence Index: IOC) found that the index of questionnaire conformed to the content in questions and set objectives is between 0.67 – 1.00 that pass criteria of 0.50 up for all questions that can be used for data collection (Tirakanan, 2007).

2. Reliability assessment by try-out for 30 people with no limitation of how many Try-out people as convenience and appropriateness (Suwanwong, 2010) to test Reliability by using alpha coefficient formula of Cronbach. Values of confidence of all parts of the questionnaire are between 0.7253 and 0.8710. Value of confidence of overall questionnaire is 0.9351 which passes the criteria that is over 0.70 (Cronbach, 2003) and values of Item Total Correlation (ITC) are between 0.2321 and 0.8622 that passes criteria of over 0.20 (Thanomsiang, 2007) so this is appropriate to apply for actual data collection.

## Data Analysis

This data analysis used the statistical package program for analysis as follows:

1. Analysis of the data from the questionnaire with SPSS program version 14.0 : frequency, percentage, arithmetic mean, standard deviation and Pearson product moment correlation coefficient.
2. Analysis of the Partial Least Squares path modeling (PLS) of the social marketing responsibility of Thai industrial entrepreneurs with secondary order confirmatory factor analysis by using the statistical package program WarpPLS version 3.0.

## Results and discussion

Basic factors of Thai industries found that from 435 samples of Thai industrial entrepreneurs, most are garment industries, not shoe industries that is 14 percentage corresponding with Office of the National Economics and Social Development Board (2013) found that in year 2012 garment industries can generate revenues from exporting from Thailand creating about 80 billion bath per year on average. Most industries, or 54.9 percentage are in industry group no.3 that have over 50 HP of machinery. Location of most Thai industries or 70.1 percentage are in the provinces agreeing with statistical survey at the end of 2014 of Department of Industrial Works (2016) found that from 141,247 industries, most industries, or 54.9 percentage are group no.3 compared to group no.1 (<20 HP) and 2 (>20-50 HP). Most industries are located in rural provinces compared to the capital city, Bangkok that is up to 87.4 percentage as well as this corresponds to the Office of Sisaket Province Industry (2015) identifying about the factory law that entrepreneurs should know factory group no.3 that uses over 50 HP machinery may cause pollution problems or trouble, nuisance or danger that have to be supervised closely such as sugar factories, paper factories, liquor factories, oil refinery factories, etc.

Therefore, they need to apply for a permit. After receiving a license, the factory can be established. Before operating a business, they have to request for operations commencing before establishing the factory at some areas. Therefore they turn to establish in provinces. They must comply with the ministerial regulations and announcements, pay for annual fees and permits for factory operations, have fund raising because of quite high capital and rely on foreign partners to increase capital and Know How that assist sustainable growth opportunities. The results found that Thai industry entrepreneurs have an average registered capital of 15.71 million Baht, an average foreign shareholders proportion of 20 percentage average number of staff in industry of 58 people and an average operation time in the industry of 12 years. Most of 70.1 percentage complying with The Office of Industrial Economics (2014) identify that industrial operations require labour and experiences to build skills and a customer base so the experience should be accumulated for a period of time and employment should be sufficient for production capacity otherwise there will be a shortage of labour which is increasingly being seen.



To study the importance of social marketing responsibility of marketing entrepreneurs of Thai industry and the test of the relationship between variables used for analysing marketing responsibility found that the dimension of corporate social responsibility activities, relationship between 11 indicators are between 0.304 and 0.670 at statistically significant at 0.05 that is not less than 0.30 (absolute value) complying with the preliminary agreement before analysing data of Viratchai (1999) show that various variables are suitable for truly applying with Confirmatory Factor Analysis (CFA) as Table 2 illustrates.

Table 2. Mean and Standard Deviation of the Sample Groups Classified by the Level of Social Marketing Responsibility

(n=435)

The level of Social Marketing Responsibility	$\bar{x}$	S.D.	Meaning
1. Support for social issues with donations of money, materials, assistance in the way the organization operates the businesses or bringing the existing resources of the organization to increase the awareness and interest of people in society.	3.58	0.90	High
2. Encouraging people in society to participate in fundraising, participation with the organization or volunteering to support and help with social issues.	3.75	0.94	High
3. Social support by the way of deducting a percentage of the total amount of sales or the services over a certain period of time of the organization with partnering with a department, foundation, or non-profit organization.	3.77	0.87	High
4. The opportunity for consumers to participate in helping a department, foundation, or non-profit organization that are interested in buying the product without any additional costs.	3.83	0.88	High
5. Supporting campaigns to improve the behavior of people in society such as cooperation with public utilities, promoting conservation of water resources, energy, electricity etc.	3.69	1.00	High
6. Support for social issues through donations or services of the organization with both public health and safety on environmental or health such as donation of child seats in cars to poor families, donations for education for underprivileged children who lack opportunities.	3.64	0.88	High
7. Volunteering for the community by encouraging their own employees and stakeholder groups to devote their time to help with social issues with a department, foundation, or non-profit organization.	3.43	0.97	High
8. Donating for charity by directly addressing social issues in the form of donations of money or items. It is an activity seen in almost every business enterprise and often it is in line with the needs externally or a proposal.	3.46	0.89	High

The level of Social Marketing Responsibility	$\bar{x}$	S.D.	Meaning
9. Doing business on a socially responsible basis of being socially responsible such as having a policy of non-marketing on undermining health which targets children in schools.	3.89	0.83	High
10. Conducting business activities that are both discriminatory and preventive on avoiding social problems or in common with the remedies to heal the social problems using the business processes. This is to improve community health and environmental protection by the business organization who can do it themselves or choose to combine with an external partner.	3.76	0.89	High
11. Development and selling of products or services that are worthwhile to people in society such as producing cosmetics, inexpensive Thai herbal supplements for medicines which are suitable in line with the purchasing power of consumers at the foundation level to access products and services for better quality of life.	3.70	0.83	High
<b>Overall</b>	<b>3.68</b>	<b>0.49</b>	<b>High</b>

The PLS route model, social marketing responsibility of Thai industrial entrepreneurs developed by technique of secondary order confirmatory factor analysis is appropriate and has convergent validity because the value of construct reliability ( $\rho_c$ ) is between 0.463 and 0.656 and the overall value is 0.770 respectively that pass the criteria of over 0.60 (Hair, Black, Babin, & Anderson, 2010). Even though the overall value of variance of construct reliability that is average of variance extracted ( $\rho_v$ ) is 0.824 while some values are between 0.301 and 0.309 that do not pass criteria of over 0.50 according to Hatcher (1994) said that value of variance of construct reliability that is average of variance extracted is often lower than 0.50, in this case, the value of construct reliability at higher than 0.60 and factor loading at over 0.40 should be considered instead (Absolute Value).

Development of PLS route model, social marketing responsibility of Thai industrial entrepreneurs by presenting proper developed model consisting of indicators compounded as any number according to the research hypothesis found that all social responsibility indicators have valid factor loading that is over 0.40 (absolute value) (Esteghamati, Zandieh, Khalilzadeh, Meysamie & Ashraf, 2010) so developed model consisting of social responsibility activities, indicator no. 1 -11, factor loading is between 0.463 and 0.656 as Table 3 and Figure 2.

Table 3. The Result of the Modeling Components of the Social Marketing Responsibility Activities

Components of the Social Marketing Responsibility Activities	Standardized Factor Loading ( $\lambda$ )	Coefficient of determination (R <sup>2</sup> )
<b>Social Marketing Responsibility</b>	<b>0.770</b>	<b>0.593</b>
	<b><math>\rho_c = 0.824, \rho_v = 0.301</math></b>	
1. Support for social issues.	0.552	0.305
2. Encouraging people in society to participate in fundraising.	0.523	0.274
3. Social support by way of percentage deduction from income.	0.521	0.271
4. The opportunity for consumers to participate in helping agencies.	0.548	0.300
5. Supporting campaigns to improve the behavior of people in society.	0.486	0.236
6. Support for social issues through donations.	0.656	0.430
7. Volunteering for the community by encouraging employees to participate.	0.568	0.323
8. Donating to charities to help reduce or solve social problems.	0.463	0.214
9. Doing business on a socially responsible basis.	0.553	0.306
10. Stopping conducted discriminatory and preventive business practices.	0.564	0.318
11. Development and distribution of goods and services.	0.575	0.331

Note: All indicators provide the factor loading criterial up to 0.40 (Absolute Value).

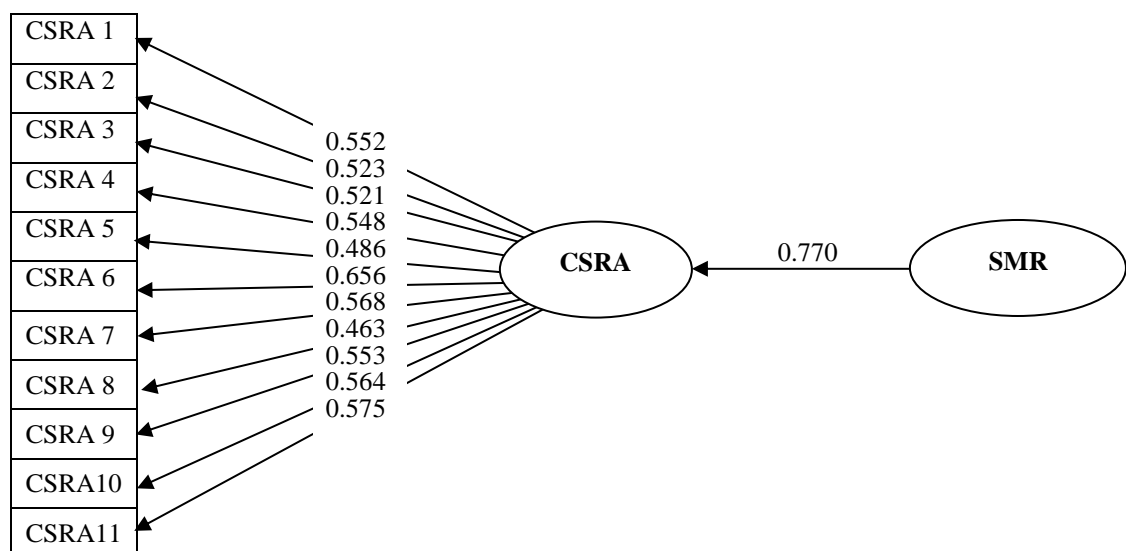


Figure 2. The Modeling Components of the Social Marketing Responsible Activity of Thai Industrial Entrepreneurs

Note: CSRA (Components of the Social Marketing Responsibility Activities)  
SMR (Social Marketing Responsibility)

## Recommendations

This research has 2 main recommendations as follows:

Practical suggestions guidelines to reinforce marketing social responsibility for Industrial factories in Thailand are as follows:

1. Collaborate between government sector and industrial sector should applying social marketing responsibility obtained from this research to push forward the policy of development on social responsibility activities and improve confidence to customers resulting in desirable business standards.
2. There are numerons advantages of implement social marketing responsibility which accrue to both industry and society has resulted in reduced unwanted customers' image.

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# An Evaluation of Industry Requirements for the Marketing Graduates at Thai Universities

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## Abstract

Marketing is one of the most prevalent graduate careers that opens up exciting opportunities for the University students. Marketing graduates require diverse skills and knowledge in today's dynamic environment. There is often a criticism from the industry professionals that the marketing graduates lack the necessary wherewithal and skills to qualify as job ready professionals. University curricula is often a mismatch for industry requirements. The marketing courses taught at Universities in Thailand should be not only knowledge and skills based, but also in line with the requirements of the industry. The programs should be structured to impart correct attitude for students' success in their work life. This paper addresses these issues and explores the requirements from the industry for Thai marketing graduates. This paper also examines the existence of skills gap and possibility to reduce this gap and eventually eliminate it. It delves into the marketing education that should be imparted to the graduate students at Universities to transform them into job ready candidates who can be suitably employed.

**Keywords:** Marketing programs, Industry requirements, knowledge and skills gap, job ready Thai professionals, marketing education, change in trends

## Introduction

### Background of the problem

It is mandatory for all universities to modernize their curriculum every few years. However, some of the updates in the marketing curriculum do not match the requirements of marketing departments in organizations, where most of the students would ultimately look for employment. To update the curricula the university has principally involved academic professionals and abided by the rules and regulations, but the industry experts were never officially involved. Job readiness and graduate outcomes have developed their importance based on international accreditations and changes in the job environment. It was required to appraise the current structure of the curriculum to make the marketing program more effective for students who aim to graduate and work in the marketing industry.

This obligated a research of the sentiments of the industry to comprehend their perspective on getting involved in education and supporting the universities. It was also imperative to understand the actual industry needs from academics and students to help create successful recruits.

### **Research questions**

The Literature available focuses on the general employability gap of graduates in Thailand but not specifically on the marketing graduates' requirements with respect to their job readiness for the industry. This leads us to the two pertinent Research questions.

**RQ1:** Are the marketing programs in Thai Universities in line with the needs of the industry in Thailand?

**RQ2:** What kind of skills should be imparted to marketing graduates to make them job ready for companies in Thailand?

### **Purpose**

The main purpose of the research is to create dialogue with the industry specialists to understand their opinion of university education and ways to involve them to participate in the education process. The area of interest for this research in the marketing departments of organizations to make effective changes in the marketing faculty of the university.

### **Hypothesis**

Our Hypothesis is:

**H1:** There is a gap between knowledge and skill needs for marketing graduates and education provided by universities in Thailand.

**H2:** Universities and industry are not working together to create marketing programs for success of graduates.

### **Literature review**

#### **Industry ready Marketing graduate requirement**

The needs of the marketing discipline in industries are evolving fast. The courses taught at Universities should not only be theory based but also up-to-date in accordance with the knowledge and skill requirements of the industry. The students studying in the marketing program are the potential employees of the industry. Their education should match the needs of the industry and that is always changing. Widely held evidence from industry shows that most marketing graduates are not job ready and hence must go through on-the-job and off-the-job training. Business students around the world have marketing as a compulsory core course and they choose marketing jobs upon graduation. It is also a popular discipline among the students both at the undergraduate and graduate level.

The perception of industry in Australia suggests that marketing educators need to place more emphasis on the problem solving, communication and the teamwork skills of marketing graduates. Improvement is required in these areas (Rundle-Theile *et al.*, 2005). Rundle-Theile *et al.* (2005) further suggests that the marketing program in universities should place more importance on clearly stated learning objectives. Outcomes of the courses in the program should be designed with a view of the students' learning needs to match future job requirements and not the teacher's activities. This is right because clearly defined learning objectives will help in enhancing the knowledge and skills of the students.

An industry ready graduate not only finds a suitable employment but also contributes to the economic development of his/her country. Some of the industry experts and scholars are concerned that the lack of industry ready graduates are likely to contribute more towards the unemployment than the global recession did. Marketing educators should include such subjects that cover various topics, such as personal and professional development, managing personal finances, general writing skills, communication skills, and personal and professional etiquette. This will help in enhancing employability of graduates (Jordaan *et al.*, 2014). Weligamage (2009) suggested that many corporates want the educators to review and redesign their curriculum and change the delivery methodology.

According to the scholar, this will inculcate and support development of communication, teamwork, problem solving and other important skills in the University students. The current trend requires more specialized or at the minimum basic digital marketing skills in new marketing recruits. This trend is on the rise due to the growth of business and business activities through electronic media. The significance of digital literacy for marketing graduates cannot be overemphasized. Manowalulou (2008) has stated that the faculty members in Thailand agree that computer competency and information literacy skills are required for marketing graduates to become successful at the workplace. Marketing graduates in Thailand have some of these computer skills but they need to mature skills in database and spreadsheet software.

According to McArthur *et al.* (2017), the employers in Australia preferred to have marketing graduates who are motivated, adept at managing their time, good at communication, and possess digital marketing experience. This raises the imperative question to determine if the delivered education and the composition of the marketing curricula are adequate for the purpose. Are universities capable of producing graduates proficient in the new trends of marketing and Industries, who are also mindful of all organizational essentials and can initiate work with minutest intervention? Some of the organizations around the world who employ marketing graduates also suggest the need for good writing skills among other communication and presentation skills, but due to the online revolution writing skills are not given the importance they require.

A well-designed marketing curriculum should have an important objective of improving student writing. A new way suggested is the One-page papers (1PP) which facilitate this process. (Wright & Larsen, 2016). IPP helps in merging effective marketing teaching with writing instructions in an efficient manner. However, it needs to be assessed whether it is also a requirement in Thailand. Internships or industrial training is of paramount significance. The marketing students may need to undertake internships to graduate successfully from university.

The tenure of these internship with the industry should be a minimum of 480 hours. The internships offer practical exposure on-the job to the students, which they cannot learn in the classrooms. There is also an added advantage of getting pre-placement offers (PPOs) with the companies for some of the diligent students, who prove their worth during the course of the internship. This will eliminate the need to look for placement for some students, which is a motivation for them to work harder during the education phase too. This is a win-win situation for the employers, graduates and the Universities. Collins (2001) has suggested that internship is an opportunity for students to experiment their career choices, gain skills and interests as well as obtain an edge over their inexperienced counterparts.

### **Marketing graduate requirements and skills gap in Thailand**

According to Pholphirul (2017), both the vertical and horizontal mismatches exist in the labor market, which resulted in lower incomes for the graduates in Thailand. However, that did not impact the employability of the candidates. Pholphirul (2017) further suggests that these mismatches can be reduced by strong collaboration between the employers and the Universities/Colleges. There are only a few degree programs in Thailand that require students to complete internship. The Universities should encourage students to work in real workplace settings and award credits from the internships. Thais perceive a demand of administrators and marketing educators. Rangel, R. *et al.* (2009) suggest that the University graduates in Thailand should have acquired analytical skills, problem solving abilities and foreign language & communication skills during their studies which they did not.

This finding by Rangel, R. *et al.* (2009) was based on questionnaire administered by them to the academicians, business executives and government officials in Thailand. They further found that it takes time for Thai graduates to be incorporated smoothly into the labor market immediately after graduation. According to Rangel, R. *et al.* (2009), on a scale of “excellent”, “good”, “regular” and “bad”, the majority of the respondents chose “regular”, with respect to this time span of smooth transition to the corporate environment.

The establishment of ASEAN Economic Council (AEC) in 2015 will ensure that the ASEAN countries are economically integrated. Tan & French-Arnold (2012) in the UNESCO, Bangkok report on Graduate Employability in Asia have stated that the establishment of AEC will help in easing the unemployment situation in Malaysia, Indonesia and Philippines. This will bring opportunities for Thailand and its workforce also.

However, the graduates in Thailand including those from the marketing stream should develop employability skills to be able to compete with the rest. AEC brings both opportunities and challenges for the Thai graduates and employees. Lathapipat and Chucherd (2013) address the problem of labor market efficiency in Thailand. They suggest that there is a lack of both quantity and quality of labor supply. The University level education in line with the employer aspirations can address this issue to some extent by producing the graduates with required competency and skills. Literature available on the industry-ready marketing graduate requirements in Thailand is quite scarce which was one of the reasons to pursue this research.

## Methodology

### Sample

The main objective of this study was to understand if the marketing programs offered to students were creating job ready graduates in accordance with the industry requirements. The secondary objective was to find the gap between marketing education provided by universities and the knowledge and skill requirements of the industry.

The evidence needed to support the study needed to be collected from industry specialists who deal with regular recruitment of newly graduated marketing executives. Turner (2010) has described the process of interviews to provide in-depth information relating to the contributors' expertise and perspectives of a specific subject. The obligation was to gather comprehensive facts. The significance was disposed to the direction of data quality established on experience of the participants, which was the focus of the study as opposed to the number of people interviewed.

The other possibility could have been the survey research approach, which is primarily used to collect evidence about the frequency, dissemination, and the associations that occur amongst variables in a fixed target population according to Coughlan, M (2009). The main limitation of the survey method would have been adaption of close-ended questions from previous similar studies rather than create them to match the scope of this particular study. This would diminish the prospect of learning novel facts, which is the effort of this exploratory study. In Thailand, several multinational as well as local companies hire graduates fresh out of university for their marketing department.

Some of these organizations have a marketing team supporting numerous marketing activities while other organizations are committed to providing various marketing functions to organizations who lack departments with specialized marketing skills like advertising, digital marketing or even research. To collect relevant information, interviews were done with chief executive officers, human resource directors and marketing heads of six multinational and two local organizations. Coverage of all kinds of marketing needs in various organizations to get a better understanding of needs and gaps was ensured.

### Conceptual Framework

Figure 1 (below) highlights the relationship between different variables with the ultimate goal of preparing industry ready marketing graduates, so that they can be easily recruited by the corporates in Thailand. There is an immediate need to develop marketing curriculum of Universities in line with the requirements of the industry and the fast evolving trends. Industry can be made a partner in developing the curricula also. The focus of marketing courses should be to impart knowledge and innovative skills like developing the digital skills of the students through more use of technology, content management, data driven decision making etc. The study of the students at University should be supplemented by internships and industry projects. This will enhance the students real world experience. Industry projects can be undertaken as a team which will instill teamwork in the students and enhance their communication skills. There are other benefits of internships and industry projects too.

Some of the students get a Pre-placement offer after completing their internship with a company, which boosts their morale and confidence. Advantages of internship include increased monetary compensation and greater overall job satisfaction (Gault *et al.*, 2000). The above conceptual model will benefit the University in reducing and eventually eradicating the skills gap and thereby developing industry ready marketing graduates. Internships & industry projects represent the **moderator** in this conceptual model.

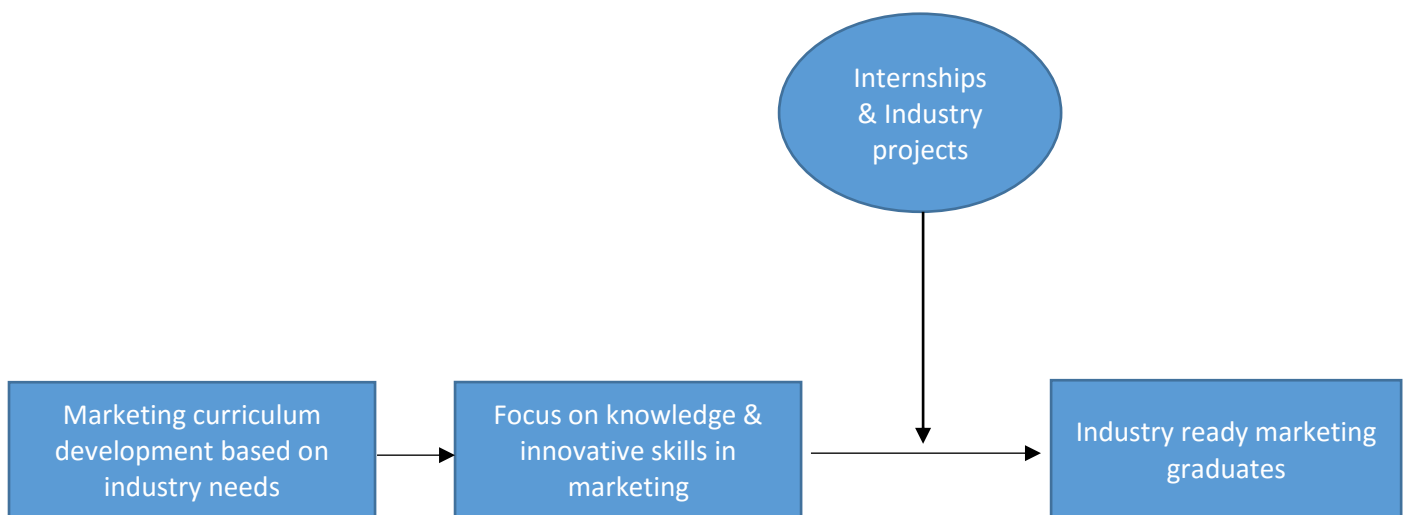


Figure 1. Conceptual model of preparing industry ready marketing graduates

## Data Analysis

Template analysis was selected as the method of data analysis for this study. This method can help in revealing the perspectives of the expert participants. The highlight is on the distinctive features of the discrepancies in the knowledge of the recruits based on the needs of the industry. The method allows flexibility in analyzing possible limitations in the scope of the study or data gathering. Qualitative research generates immense volume of intricate textual data, which is a challenge to scrutinize without set variables. King (1998) discusses how researchers traverse through the extensive material to construct understanding of the experiences captured in the interview text. One of the author adopted the role of interviewer.

It was decided that it is better to have the author interview instead of a research assistant, as it is important to understand their attitudes here instead of just the spoken words. The intention was to acquire adequate consistency grounded on their knowledge of marketing, academics and expertise of the template coding structures. The participants were asked several questions regarding the three capacities that developed during the course study. The areas that emerged after data analysis using template analysis method were 'the need for job readiness of the marketing graduates', 'skills required in marketing recruits' and 'appropriate teaching methods to develop job ready students at the university'.



### **Need for job readiness of graduates**

The participants had to discuss and decide whether there was a need to make the marketing graduates more suitable for recruitment. They had to analyze based on their own experiences if they would prefer graduates to be more equipped so that they are more ready to assume responsibilities and require less training on and off the job. The themes that emerged in this context were in two major areas.

The first one was 'Gap between academics and industry trends' where the main concerns from the participants were regarding 'students are clueless about the difference in work life', 'marketing needs and trends not updated regularly in universities' and 'practical exposure for students are too little and too late'.

The second emerging area of discourse was that 'businesses want competent and agile graduates', where the main concerns from the participants were regarding 'skills and attitude mismatch among new recruits', 'need for confidence', 'understanding the environment and needs', 'cross diversification' and 'relevant practical work experience before graduating'.

### **Skills required in marketing recruits**

The second context that the participants had to discuss was regarding the knowledge and skills required in all their marketing employees based on jobs they confer upon interns and new recruits. They had to establish their decision on marketing activities in their organization. Some of the themes that emerged during the discourse were divided between 'General Marketing skills' like planning, strategizing, presentation, innovation, creativity, ethics, cross-cultural management and teamwork while the other emergent theme was 'Specialized marketing skills' like branding, research, negotiation, digital marketing, big data, data driven marketing, decision-making etc.

### **Appropriate teaching method and preparing job ready graduates at the university**

The third context that the participants had to discuss was about teaching and preparation of job ready students. They had to establish their decision of the curriculum, courses and activities that marketing students need to follow to emerge as successful job ready graduates. Two major themes emerged during the discourse, 'Industry and University share obligation' and 'Updated Curriculum based on change in the industry'.

Under 'Industry and University share obligation' the main ideas were 'understanding trends in market research', 'internships and focus on industry projects' and use of updated technology.

Under 'Updated Curriculum based on change in the industry' the main ideas were 'update should be after discussions with relevant industry specialists', 'provide activities and workshops to increase interaction with industry', and 'involve industry experts as guest lecturers'.

## Discussion

The analysis of the interviews evidently established the empirical study. Based on outcomes it is essential for universities to adjust their marketing program structures and techniques of teaching, away from giving evidence of acquired knowledge, to an acquisition of skills (Rundle-Theile *et al.*, 2005). A similar sentiment is mirrored from the interviews where the pace of the industry is far progressive than the pace of alteration in education. This is not just a concern among marketing students and marketing departments of companies only. According to discussions by both Jenvey (2012) and Jordaan (2009), there is an inconsistency between the skills that are compulsory in economies and the effectiveness of skills possessed by graduates from Universities. Participants have discoursed comprehensively about various topics of importance. They sketched out the work done by their organization and the necessities and limitations when it comes to marketing.

Each of these organizations recruit or have recruited new graduates. One of the primary theme was about the job readiness of marketing graduates in their organization or from their experience. The discussions included specifics concerning skill requirements among marketing recruits to be job ready and to be effective in their work. Different marketing jobs necessitate different set of skills and expertise in every level, which changes as per the strategy and progress of the individual. The market is exceptionally competitive and yet there is an insufficiency of proficient individuals for the various positions.

To be successful, marketing graduates should possess some rudimentary and some specialized knowledge and skills that are developing in their line of work. There is a need in the universities to begin early intervention in the curricula and teaching plans to include rigorous practical work to students along with the theory. The focus should be on teaching and creating job ready marketing graduates who would possess all qualities of prospective recruits. This aspect would help in reducing the training cost of companies, especially the SME's. The company marketing executives were asked if they would find it more lucrative to recruit graduates who come equipped with the knowledge that you have to train others to. If this is an interesting prospect, what are their ideas on how to impart some of the most required marketing skills to prospective graduates to create a ready to recruit marketing graduates' pool? Being open to internships and offering industry projects to students.

## Findings and Results

Based on the in-depth conversation with the participants, it was established that organizations are all exceedingly concerned in the outcomes of the students. They are keen to support the needs of the students in terms of education and skills development, as finally, they would be a part of the industry. The organization members are in wonderment of the new trends in learning that students possess today. They also feel students are much advanced and aware. However, they also feel that new marketing recruits fail to assess the difference between student life and work life. They fail to understand essentials of a business or the workings of business. They take it more lightly than many organizations would recommend. Marketing students need to be adept at business trends and stay updated regarding all current affairs trying to predict how that could affect the future of business.

Marketing recruits definitely need all the general skills that people possess these days like planning, strategy and branding or being creative and being a team player. Apart from that, new marketing recruits also need to possess specialized skills along with basic knowledge of marketing. These days' recruiters want marketing employees to be good storytellers, presenters, people who can isolate crucial concerns, who are persuasive and excellent negotiators. These skills are alongside being good researchers, digital marketers, data analysts and decision makers.

Organizations are concerned, students are imparted various theories and principles but their application skills are not so adept or they struggle to communicate and present their concepts and conclusions. Teaching such skills after employment is very difficult. In conjunction with learning research skills and using tools professionally for data-analysis, they should be also be taught interpretation and decision making skills to make them more competitive. Students also need to pay attention to new trends like the concept of big data, content management, tech monitoring and optimization and should comprehend the diverse channels and media.

Eventually they will be supporting new product development, concept testing, market penetration, branding, image personality, customer satisfaction, pre-launch, post-launch, segmentation and much more. Most students start their career with general marketing or administrative jobs. They need training before they are given the more demanding marketing activities. Once trained, they also help with strategy making, creatives, designing, programming, social media marketing, content management and many other challenging activities.

However, this is a slow learning process. Students are not expected to start their career in marketing with all this knowledge right after university. However, they need to have the mentality to want to apprehend the diverse needs of the organization they are joining. Different organizations have different environment and students must be willing to show good work under pressure, which happens quite often. Some good recruits are unable to bear the challenges and pressure even with the support of mentors, workshops and in-house coaching and training. Attitude and confidence cannot be taught to any student; however, it can be instilled early in them, along with the education.

They should learn to work independently, be able to defend their ideas in the right way and yet be open to other opinions. Innovation, creativity, openness to change and usage of more technology should be together with their competitive marketing skills and knowledge. Most of the companies support both local and international organizations and require data of Thai consumers as well as international consumers. Adaptation to culture, ethical behavior and acceptance are extremely important traits for successful employees. In almost all organizations, interns and new recruits all do real work. Along with the need for a specialization, multi-talented and cross-diversified employees are the need of the hour.

### **What does the finding mean for student, academics and the marketing industry?**

According to the outcomes of the research, industry experts agree there is a gap between industry requirements and the education provided at the universities. This influence is not just among the marketing graduates but in general majority of new recruits in all departments. Industry experts identify that change is fast to keep up with competition and to create competitive advantage.

This tendency will transform further and become more rapid instead of decelerating. However, this change is excessively rapid and challenging to be reflected in university education, which is bound, by regulations and laws. Consistent curricula appraises to keep up with altering trends would be a better possibility. Include the industry to recommend the essentials and alterations required. Keep the industry experts further involved in the program delivery could be a possibility when curriculum changes are not feasible.

Universities still have a way of offering updated information and skill training to students through extra-curricular offering in the form of seminars and workshops. This could also be done through the association of industry specialists to provide courses on the new trends. Organizations are often open to industry projects, job shadowing and internship opportunities. The industry is very willing to influence students and support university with the education to make students more work ready. They believe students should already get a flavor of working with organizations while at University. The industry would also be willing to work with faculty for consulting and research projects. This is an excellent method of involving the faculty in industry trend changes and keeping them updated.

Industry would always choose to recruit students who are more job ready and are enthusiastic to support universities in the form of projects or competitions, which creates many opportunities for the students while they are still at university. Apart from modernizing through specialized and generalized skills in graduates, it is particularly vital now to produce more graduates who are progressive, unprejudiced and have the correct attitude to acclimatize to situations of the organization. They can get many opportunities that will support them to gain the insights into the organizations through industry projects and workshops with the industry.

### **Limitation and Future Studies**

Lecturers in the university do not really know what is happening in the industry or how trends are changing. This is not just happening in the marketing faculty but is a common trend in most faculties. Johnston, S., & McCormack, C. (1996) said many of university lecturers seem to be the obstacles themselves due to some subjective reservations about moving on from exclusive dependence on old-style education tactics and moving towards incorporating different new drifts and methodologies into their teaching. Organizations are extremely concerned that some curricula changes happen after seven to ten years when the needs of the industry changes every six months. With the growth in technology that change has become more frequent and unpredictable due to the growing competition. Honomichl, J. (2000) stated, the evolution will only intensify its pace as the competitive economies of the world magnify. Research should validate the opinion of the universities in Thailand.

It is crucial to understand their viewpoint in regards to this problem and how motivated they are to take corrective action. Change in curricula and programs in the university is a long process and change is difficult. It is also thought provoking and we must take notice, regarding the extremely little significant research done in Thailand that deliberates these problems. This generates a need for additional research into the problem and also a need to evaluate if such changes are effective in future. Change in curricula takes place without the inclusion of the industry. Koh, K. (1995) shared his discontent at educators designing the curricula with absolutely no involvement of the industry which creates lack of relevance and standardization.

To conclude it was established that the gap in the job readiness of the marketing graduates in Thailand is real. Prominent industry professionals are expressing their apprehensions regarding the skill levels of the marketing graduates and their attitudes, which makes employment of fresh graduates without training and probation difficult. It is not cost effective as graduates may ultimately decide against continuing with the organization after extensive training and on boarding.

However, not familiarizing and training the recruit who have very little concept of work life also affects the industry negatively. Universities may want to discuss how students could be more aware of changes in work life. If students get practical exposure, they will learn what reality is. There is extensive need for university education to match up to the market trends and create curricula that supports the recruitment needs of the market. It is also extremely important to understand the views of the universities and expectations of the students too. However, due to time limitation we were unable to do the same. We also have no way to evaluate the difficulty level of such change for the university and also their effectiveness for either the graduates or the industry in the fast changing environment.

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