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The Proceedings of the 6th ICADA 2017

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**THE INTEGRATION OF EDUCATION IN THE CAPITALIST SYSTEM
AT ISLAMIC BOARDING SCHOOL (PONDOK PESANTREN)
DARUL ‘ULUM JOMBANG, INDONESIA**

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ABSTRACT

This paper tries to discuss the influence of education in the capitalist system at Islamic boarding school context. The Indonesian education in capitalist system is not only applied in formal school, but also in Islamic boarding school. Islamic boarding school (*Pondok-Pesantren*) Darul‘UlumJombang (1885) is one of Islamic school that developed because of the capitalist system. Based on the capitalist system and education which is held by the Islamic boarding school, this paper proposed that the capitalist system is integrated with education system of Islamic boarding school and expect to blend education system for all societies. This paper will be elaborated by three components: the capitalist system in Indonesia education, the education system which is held by Islamic boarding school, and the integration of both of them.

KEY WORDS: Islamic boarding school, Pesantren, education, capitalism, Indonesia

INTRODUCTION

Capitalism is a product of globalization which has an impact and influence on the education system in Indonesia. Actually, capitalism is not a new issue to be discussed. However, this issue has a strong influence toward an economic global society, especially in Indonesia. Capitalism as an economic system that emphasizes on the role of capital has spread to the education system. Because of that, the relation between capitalism and education cannot be separated and it influences each other to fulfill the development of education. This influence is raising commercialization of education through the emphasizing of capital (Lismiati, 2016). On the other hand, education is the most fundamental needs of the

people. By commercialization, this education system cannot be followed by all of Indonesian society. It is more likely aimed to people who can fulfill the fee requirement. Commercialization becomes a threat to the Indonesian education system and further fosters the capitalist systems. (Intifadha, 2015)

There are two education types in Indonesia, formal and non-formal school. Besides, there are two places categorized, government and private sector. Islamic boarding school or *salafiah* –the old model of Islamic boarding school, is a formal education type and categorized as private sector. Formal school is a school that scientifically oriented. While, *salafiah* is a rigid school which its educational system prioritizes the understanding of Islamic concept. Moreover, as the democratic country, Indonesia needs to realize the equal rights of society. The education system is expected to be able realizing that purpose. With the existence of capitalism which always follows the development era, the Indonesian education system cannot escape from the influence of capitalism. In another hand, Islamic boarding school is not purely capitalist. However, both of the education systems tend to be capital oriented (Solihin, 2015). One of Islamic boarding school in Indonesia, that the writer going to analyze, is *Pondok Pesantren* Darul ‘Ulum Jombang. The writer chooses this Islamic boarding school because of its adaptation to capitalist system while maintaining its Islamic fundamental program.

In short, education in the capitalist system refers to two things: (1) the curriculum responses showed by how many people who can get the education, less well-educated facilities, and increase a number of educational institutions which is not followed by job availability. (2) The capital accumulation process of education which can be seen by school fee and operational system. In the other hand, Islamic Boarding School (*Pondok Pesantren*) Darul ‘Ulum Jombang see formal education types that exist in surrounding: Islamic boarding school *salafiah*, such as As Saadah in Lamongan and formal school in general such as SDN, SMPN, and SMAN in Jombang. That education system cannot be followed by all of Indonesian society –especially for people around Jombang. Since both of the education systems tend to be capital oriented and also there is a rigid system in Islamic concept. Based on this social problem, *Pondok Pesantren* Darul ‘Ulum Jombang tries to integrate both and expect to blend education system for all societies, which is concerned to get equal rights in education and not only rigid in Islamic concept.

This is a challenge for *Pondok Pesantren* Darul ‘Ulum Jombang to maintain their integration systems that all people are able to get equal rights in education. Thus, *Pondok Pesantren* Darul ‘Ulum Jombang is expected to contribute in realizing educational democracy which is contained in Indonesia Constitution. However, this paper is proposed that the capitalist system is integrated with education system and expected to blend education system for all societies. It can be seen through Islamic boarding school *Pondok Pesantren* Darul ‘Ulum Jombang. This paper consists of the capitalist system in Indonesia education, the education system which is held by Islamic boarding school, and the integration of both of them, in *Pondok Pesantren* Darul ‘Ulum Jombang.

THE CAPITALIST SYSTEM IN INDONESIA EDUCATION

The capitalist system in the education is a package that cannot be separated by the existence of the capitalist system. Thus, the rapid flow of capitalism in education that emphasize on capital makes the commercialization of education. When there is

commercialization in education, the meaning of education is no longer belong to the Indonesian citizen but will belong to the one who can fulfill fee requirement only (Lismiati, 2016). The Indonesian government has outlined the functions and objectives of National Education based on Pancasila and the 1945 Constitution of the Republic of Indonesia, which explained in Law Number 20 Year 2003, about National Education System (Ministry of Education and Culture, 2015). Thus, it is required the fulfillment of rights to get an education for the citizens.

Education in the capitalist system refers to two things. First, the curriculum responses showed by how many people who can get the education, less well-educated facilities, and increase a number of educational institutions which is not followed by job availability. The respond is viewed by the amount of citizen who are able to get a better education today, tends to increase each year. However, less finance ability is still the main reason also for the citizen to not continue their studies to higher level. According to the Center for Population and Policy Studies UGM (2016), the results of research in North Sumatra, West Java, East Java, West Nusa Tenggara, East Nusa Tenggara and South Sulawesi in 2014, as many as 47.3% of respondents answered no longer attending school because of the fee problem. As a democratic country, actually Indonesia should provide equal educational opportunities and same quality for all citizens (Solihin, 2015).

Besides, the curriculum respond toward the issue which can increase a number of educational institutions which is not followed by job availability. According to data from the World Bank in 2014, the Indonesian government has made improvements to the education level which is proven by the increased access, especially for poor citizens and the number of workers with higher education doubled from nearly 5 million to nearly 10 million in 2001 and 2010 (World Bank, 2014). In other words, the increasing of educated worker number is huge. Not only by government, but the society also helped by the emergence of public institutions which is actively participating in education with affordable fee for society (Supardi, 2012). There are foundations that specifically have activities in managing the education institutions (schools). Indirectly, the development of education through the provision of school did seem encouraging.

However, improved access is accompanied by the difficulty of finding a job. This shows that there is a missing link between higher education and the availability of jobs (Widodo, 2015). One indicator is education in the capitalist system that occurred in Indonesia. The education system that is built only oriented to get a job, capital accumulation by the institution and tend to stand on the pragmatic needs (Lismiati, 2016). This happened to produce instant education and ignore the quality of education, more likely capitalist, materialistic or profit oriented (Solihin, 2015). This education system can be seen by various educational packages that offered based on market-oriented. The increasing of graduates from college is followed by the increasing of an unemployed number. Thus, the emergence of the intellectual unemployment will degenerate the nation building.

Second, talking about education in the capitalist system is about the accumulation process of education which can be seen through school fee and operational system. Under the 1945 Constitution, article 31, paragraph 4 explained in terms of financing education and in accordance with article 49 paragraph 1 of Law No. 20 of 2003 that state prioritizes education budget at least 20% of the budget revenue and expenditure of state and district to meet the needs of national education (Republik Indonesia, 2003). From the constitution,

the region has a huge responsibility to finance the education sector by using its budget and use it in long-term. However, the budgeting of education cannot be separated from central government subsidies. Regional revenue is not as much as expected due to the ability of the resources that are very different (Fironika, 2015). If the regional government has difficulties to meet 20% as target of the budget for education, in turn, it would risk a decline in the quality of human resources in getting an education.

Education budgeting consists of investment cost, operational costs, and personnel costs. Without the aid, a citizen who cannot fulfill the fee requirement will not be able to continue the study. One of the central government aids to the region is the school operational assistance-- although it is limited, it can help the education needs of the society. The problem however when the state is already tied up the capitalist system, the education system was bound by material oriented and private institutions. Where the most of the financial ability are still not adequate with an uncertain source of income of the citizen. Impose education costs on society is a way of private school survival financially. When public school is also treated the same as private school, then schools are owned only by people who meet the fee requirements (Fironika, 2015).

THE EDUCATION SYSTEM WHICH IS HELD BY ISLAMIC BOARDING SCHOOL

Indonesia has special Islamic Education System called Islamic Boarding School or *Pondok Pesantren*. Most 'pesantren' provide housing or dormitory living at low or no cost for the students (called *santri*). The two type of education systems are conducted throughout the day. Students in *pesantren* have almost 20 hours activities. It started from early Morning Prayer at 4 am to midnight where they ended the evening with a study group in the dormitory. During the day, students attend formal school like any other students outside of *pesantren*, and in late afternoon and evening they have to attend religious ritual followed by religious studies and group studies to complete their homework. *Pesantren* provide to Indonesian citizens at low cost; although today some modern *pesantren* charge higher fee than previously, they are still significantly cheaper than non-*pesantren* educational institutions. The traditional pattern was for students to serve *kyai* in exchange for food, shelter, and education.

A formal education system that is strongly material oriented deemed incompatible with democracy, it raised the boarding school system predicted to be an education system that is in accordance in Indonesia. *Pondok Pesantren* as private sector has been recognized by all of the society, long ago before formal schools in government sector were introduced. *Pondok Pesantren* has been helped accelerate the distribution and access of teaching; and open the opportunity for people who do not have the opportunity to follow formal education in government sector; and continue to pursue higher education. In fact, it cannot be denied; nowadays *Pondok Pesantren* seems ancient and has a distance from globalization. Although the place is not moneyoriented as much as formal education, *Pondok Pesantren*'s students are also required to pay the school fee for their education. Besides that, many of thought argue that graduates from *Pondok Pesantren* do not receive much workspace; it's a dilemma for the (Indonesian) society to reused *Pondok Pesantren* system in modern era (Sumardi, 2012).

The curriculum, which is run by *Pondok Pesantren*, has an over-reliance on *Kyai* (the head of *Pondok Pesantren*) becomes problematic, if it is associated with the demands of rapid change era. The school curriculum here only studies the classics subjects including: *Tauhid, Tafsir, Hadist, Fiqih, Tasawwuf, Mantiq, Akhlak, Arabic*, which is partially understood in purely normative approach education system (Priyanto, 2006). The implementation of this curriculum is based on the simplicity and the complexity of the science or the issues discussed purely religious sourced from books (*Kitab*) in Arabic written by the scholars of medieval (7-13 H) known as “the yellow book” (*Kitab Kuning*). On the other hand, the boarding school is less able to adjust the era. The changing of globalization must be followed by the education system. If *Pondok Pesantren* still used the same curriculum in the process of teaching and learning, this education system feared would stick only on one place (Priyanto, 2006).

In other *Pondok Pesantren* systems, financial becomes a different part to be discussed. Although there have been formal schools in government sector before, *Pondok Pesantren* has already implementing the capitalist system, but it's in some level it is more affordable than in formal school in government sector. *Pondok Pesantren* fees sourced are coming from the own foundation that managed by *Kyai* and some obligation donations from the students. *Pondok Pesantren's* fee is allocated to the teaching and learning activities, monthly or yearly events including the salaries of teachers that called as *Ustadz* (Yakin, 2014). Besides that, the students are required to make a payment at any time for outside of teaching and learning activities. This system does not happen continuously, because *Pondok Pesantren* also adopted the system of financing relative concepts of simplicity, sincerity, freedom, independence, and fraternity. Simplicity is reflected in the physical form of the building; *Kyai*, the students, and the curriculum are packed very simple does not change annually in orders to minimize the school fee. Sincerity is a concept of work that does not expect anything except the blessing of God. Freedom means independent, *Pondok Pesantren* are everywhere but not linked everywhere (Mustiningsih, 2014).

Pondok Pesantren is not related to financial management directly, but rather than the understanding its use. By considering the fact that *Pondok Pesantren* is implemented the capitalist vague system, it would burden the society. Especially in this modern era, the increasing of school's fee cannot be charged to the students, it is not much different from the capitalist system of formal school in government sector. Compared with the curriculum that stacks on one place, it is very inefficient. Therefore, *Pondok Pesantren* will no longer as a concept of brotherhood if only entered by the upper class (Lismiati, 2016).

The highlight point under *Pondok Pesantren* system is the fate of the graduates. The people assume that *Pondok Pesantren* alumnus will only become *Ustadz*, religious teacher or a person who delivers prayers. This assumptions drive precisely untrue. The students or *santris* are not ready to face a modern problem yet; they tend to have a distance and barrier from their knowledge to the fast-paced development today. In addition, the thought or myth stated that *Pondok Pesantren* graduates are old enough to get married and less thinking about to work and continue their life. It is erroneous assumption to work than to be someone who understands the religion (Priyanto, 2006). This thought are actually good for some reasons, for example if the *santris* later on will only focus on building another *pesantren* (in which focus on religious studies) in their environment. Unfortunately, the thought are inappropriate recently, if it is compared the school fees which they have already spent to the jobs availability or the rest income for their well-being.

Therefore, this paper is proposed to re-design the education system including the curriculum. It refers to the demand of society in this era without leaving the characteristics that owned by *Pondok Pesantren* (Zakaria, 2010). The management of financial system should be adjusted, monitored and accumulated together with all stakeholders. The important is the graduates who do not get a job will threaten the younger generation. By this fact happened, the new Islamic education institution emerged. These systems urge to lead the founding of the Islamic boarding school in Darul 'Ulum Jombang was built in 1885. This institution integrated the traditional education system along with modern system and needs without leaving the speciality and main vision of *Pondok Pesantren*.

THE INTEGRATION OF EDUCATION IN THE CAPITALIST SYSTEM AT ISLAMIC BOARDING SCHOOL DARUL 'ULUM JOMBANG

The history of *Pondok Pesantren* development in Indonesia cannot be separated with the origins of the birth of schools affected previously by the history Walisongo 15-16 century AD which has the characteristics: way of Life –all of *santri* were more concerned with the afterlife than the world living in the earth, so they could be more wise facing their problems, leadership –from *kyai* or *ulama* ' which creates paternalism and patron-client relation, solution system –*pesantren* can create ideal model and solution system for all, equality – every *santri* is equal, there is no special *santri* and ordinary *santri*, and adaptive education –education in *Pondok Pesantren* is based on adaptive education, means that after *santri* graduated from *Pondok Pesantren*, they can apply what they get in *pesantren*. (Lukens-Bull, 2005)

Pondok Pesantren Darul 'Ulum Jombang is one of well-known *Pondok Pesantren* in Jombang, East Java, Indonesia which has succeeded to combine sociopolitical, economic and cultural change into *pesantren* system. That *Pondok pesantren* also integrate its education system between national education system and *Pondok Pesantren* education system. The modern of *Pondok Pesantren* has started to consolidate both of them in Islamic boarding school. *Pondok Pesantren* Darul 'Ulum Jombang which is mainly located in the town area realized the necessity of teaching and learning in both areas of curriculum. Besides, religious studies that are concerned to study about, there are also academic subjects which have to be learned in formal school in government sector there such as Mathematics, Sciences, international language (English, Arabic, French, and Japan), Economics, Electro, and many others.

According to Mustiningsih (2014) *Pondok Pesantren* adopted the system of financing relative concepts of simplicity, sincerity, freedom, independence, and fraternity in the old system. It is continuously happen in *Pondok Pesantren* Darul 'Ulum Jombang, even today the education fee in *Pondok Pesantren* are not only covered by the *kyai* and *santri* but has a lot of assistance provided by the government. The education fee itself as the first integration. It is like *School Operational Assistance* as aid program on education budget in formal school-government sector. However, it doesn't mean that governments voluntarily provide assistance. *Pondok Pesantren* Darul 'Ulum Jombang makes a strong cooperation with the government. Education budget also come from the own foundation that managed by *Kyai* and some donations from the students. It makes citizen can get education and fulfill the fee requirement. This shows that there is some integration of education system from *salafiah* Islamic Boarding School and formal school-government sector.

The second integration is about the curriculum. The curriculum used by *salafiah* Islamic Boarding School is packed simply. It does not change over the years which sources taken from books (*Kitab*) in Arabic written by the scholars of medieval (7-13 H) known as “the yellow book” (*Kitab Kuning*). In the other hand formal school-government sector only uses academic subject like exact and non-exact sciences. Meanwhile, *Pondok Pesantren* Darul ‘Ulum Jombang already takes a step forward by establishing system that combine both curriculum through cooperate with the government. It can be seen through the establishment of some formal school-government sector: Madrasah Ibtidaiyah Negeri (MIN) Rejoso, Madrasah Tsanawiyah Negeri (MTSN) Rejoso, Madrasah Aliyah Negeri (MAN) Rejoso and SMP Negeri 3 Peterongan (Romly, 1993), which is operated by *Pondok Pesantren* Darul ‘Ulum Jombang, not the government like other.

The third integration is about the alumnus. The alumnus at *salafiah* Islamic Boarding School will only become an ‘*Ustadz*’. However, alumnus in *Pondok Pesantren* Darul ‘Ulum Jombang can pursue education at higher level in various fields such as medicine, economics, engineering, agriculture and many others which is not limited to religious matters. It is because *Pondok Pesantren* graduates are well-equipped with religious knowledge which is balancing, with their acquired life skills. The alumnus will grow into independent person who does not need to depend on others. It is aimed to reach the most important purpose, that is, they are expected to be able to create new job opportunities to assist the communities around (Zakaria, 2010).

According to a report by the Ministry of Religious Affairs 2011, the number of *pesantren* in Indonesia has reached 25,000 with a total of 3,65 million students. (Prasetyono, 2016). However, since the 80s, the image of *pesantren* in society has changed. *Pesantren* has succeeded improving the establishment of Islamic education institution. Since 1985, *Pondok Pesantren* Darul ‘Ulum Jombang became a pioneer in the collaboration and incorporated both formal education types and system. This is based on KH As'ad Umar's concern as the headmaster of the *Pondok Pesantren* Darul ‘Ulum Jombang at that time was concerned with education (Romly, 1993). It is because *pesantren* has proven fast and responsive to change and always has innovation in the education field. The education system can followed by all society. It is refers to the fulfillment of society demand in this era without leaving the characteristics that owned by *Pondok Pesantren*.

In comparison to *kuttab* in Egypt and *madresse* in Turkey, *pesantren* also rejected some views in a while of Muslim reformers bring a new education system since the early 20th century. This action was to prove the active respond when there is a new system, *pesantren* will not easily to follow the system. *Pesantren* rejected the certain aspects of the reformer group's understanding in religion sides. At the same time *pesantren* followed the footsteps of the reformers, so they will able to survive. That is called self-defense in political sights. However, although *pesantren* has taken appropriate steps of adjustment for its viability, it is beneficial for students so they can have received both of classical system and further curriculum development. Combination between classical system and latest curriculum development, led *Pondok Pesantren* Darul ‘Ulum Jombang (1885), Mambaul ‘Ulum Jombang (1906), Tambak Beras Jombang (1825) and Tebu Ireng Jombang (1916) to provide the general subjects in formal school-government sector such as Mathematics, Physics, Chemistry, Biology, English Language as well as *salafiah* Islamic Boarding School curriculum such as *tauhid*, *tafsir*, *hadist*, *fiqih*, *tasawwuf*, *mantiq*, *akhlak*, and Arabic language.

CONCLUSION

The thought of *pesantren* alumnus will only become *Ustadz*, does not possess life skill and pursue higher education, make erroneous assumptions. *Pesantren* is one of the places to create modification of education system and implement Islamic curriculum to get a balance education quality. *Pesantren* could integrate education in the capitalist system to guarantee that every student in *pesantren* will get better education. History shows that *pesantren* takes the action to make a great contribution to the independence of Indonesia; most have also played a significant role in making Indonesian Muslims moderate and tolerant. However, the condition of *pesantren*, especially in rural areas, is deplorable. Some of them have been left behind far away compare to other institutions in urban areas. One reason is the lack of attention and equity from the government in developing *pesantren*. Thus, the government needs to create an affirmative program to help the schools growth, to support their surrounding communities and *pesantren* graduates to face the influence of globalization and education which is market-oriented. Those suggestions can be achieved with the integration of education in the capitalist system at *pesantren* as one of the potential area to be concerned.

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WAGE INEQUALITY AMONG MYANMAR IMMIGRANT AGRICULTURAL WORKERS IN THAILAND

by

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ABSTRACT

Myanmar is the largest migration source country in the Greater Mekong Sub region. Thailand is the major destination for immigrants in mainland Southeast Asia, and Myanmar immigrants are the most populated in Thailand in every sector. Myanmar immigrants generally receive less or often far less than the minimum wage, and their wages vary across demographic and job characteristics. This paper aims to shed light on the characteristics of Myanmar immigrants who have been working in agricultural and agro-industry sectors in Thailand, and identifies the relationship between characteristics of immigrant workers and their wages. This study used multiple regression analysis and comparative analysis to analyze interrelationships among variables and focused on the Myanmar agricultural workers who have worked in Tak province in Thailand. The results show that the daily wage and fringe benefits of agro-industry workers were higher than those of farm workers. Legal status, gender and working areas of immigrant also were significantly related to their earnings. Human capital characteristics, such as language skill and education level, also were found to be related to wage of agro-industry workers although they were not related to the wage of farmworkers.

KEY WORDS: Wage inequality, wage differentials, agricultural workers,
Myanmar immigrant

INTRODUCTION

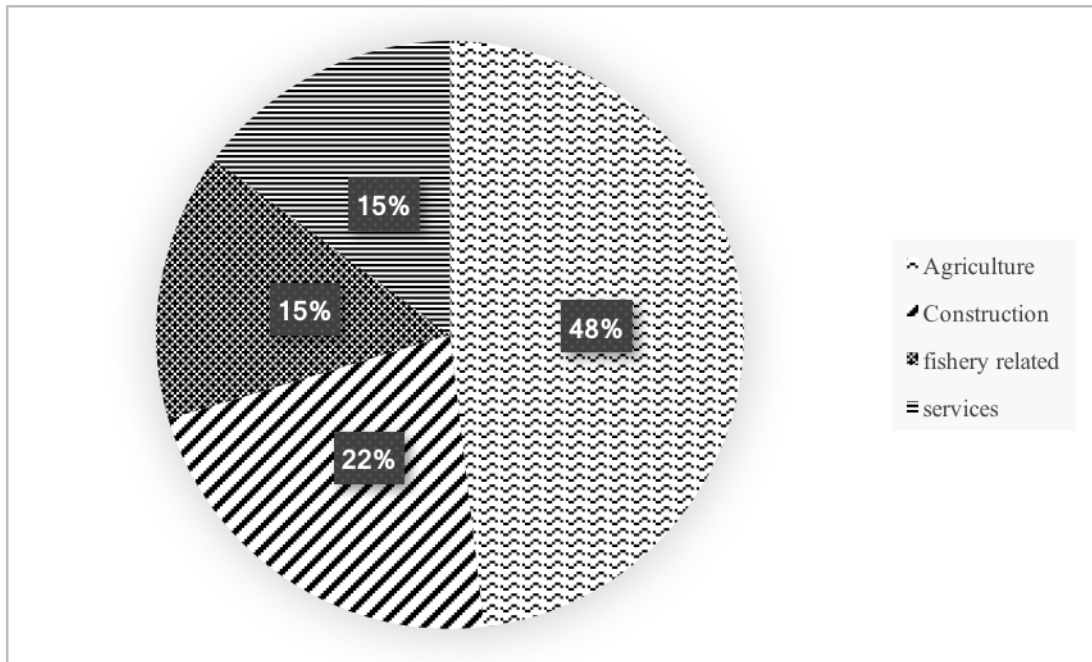
Most people have been migrating from one area to another for their survival, food, land, peace or economic security (Petersen, 1978). About 10% of Myanmar population migrated to other countries due to inability to earn enough money to survive as well as political and/or ethnic conflict (Hall, 2012). About 70% of immigrant workers in Thailand was from Myanmar and was accounted as the largest migration flows (Chantavanich & Vungsiriphisal, 2012). Thailand is one of the largest labor receiving countries, especially low-skilled immigrants in order to update economic acceleration and labor-intensive

industrial sectors. These immigrants were predominately employed in low-skilled jobs in fishing, agriculture, construction, manufacturing, domestic work and other services (Chantavanich & Vungsiriphisal, 2012). The estimated number of immigrants was 350,185 persons by memorandum of understanding (MOU), 964,130 persons by completed national verification and 1,049,326 persons through by one stop services; among them, Myanmar immigrants accounted for 48%, 82% and 42%, respectively (International Labor Organization, 2016). The economic development, better job opportunities are the main pull factors for working in Thailand from the neighboring countries, Myanmar, Laos, and Cambodia (Thet & Pholphirul, 2015). The largest population of immigrants were Myanmar, accounting to about 80% of total immigrants in Thailand (Mon, 2010).

In 2011, immigrant workers from Myanmar in Thailand mainly worked in agriculture, construction and fishing industry (Figure 1), and spread across the country, with the highest concentration in the Central and Northern provinces bordering with Myanmar (Figure 2). Martin (2007) compared the wages of immigrant workers by district, the wages were significantly higher than average wage in southern Thailand because of rubber production districts. Wages can vary depending on their occupational and gender differential (Nielsen et al, 2004; Pozo et al, 2011; Thrane, 2008). In January 2013, Thailand raised the minimum wages to 300 THB/day (about 9USD/day) uniformly regardless of age, gender, industry and nationality. However, immigrant workers in agriculture earned the lowest wage, and female and unregistered immigrants rewarded less than their counterparts (Baron & Lee, 2015). For example, the registered immigrants received more monthly wages about 4000 baht by half compared to unregistered immigrants wages about 1500 baht especially in agricultural sectors in 2004 (Sciortino, 2009). In 2010, while registered immigrants received wages about 6095 baht less than half those of native workers' wages about 13265 baht, female registered immigrants received monthly wages 5264 baht less than immigrants male and native workers (International Labor Organization, 2013). There have been no evidences explaining the cause of wage discrimination among agricultural workers, especially immigrants. Thus, in order to provide appropriate policy implications related to unskilled agricultural workers in Thailand, it is important to explore the characteristics influence wage of agricultural and agricultural-related or agro-industry workers.

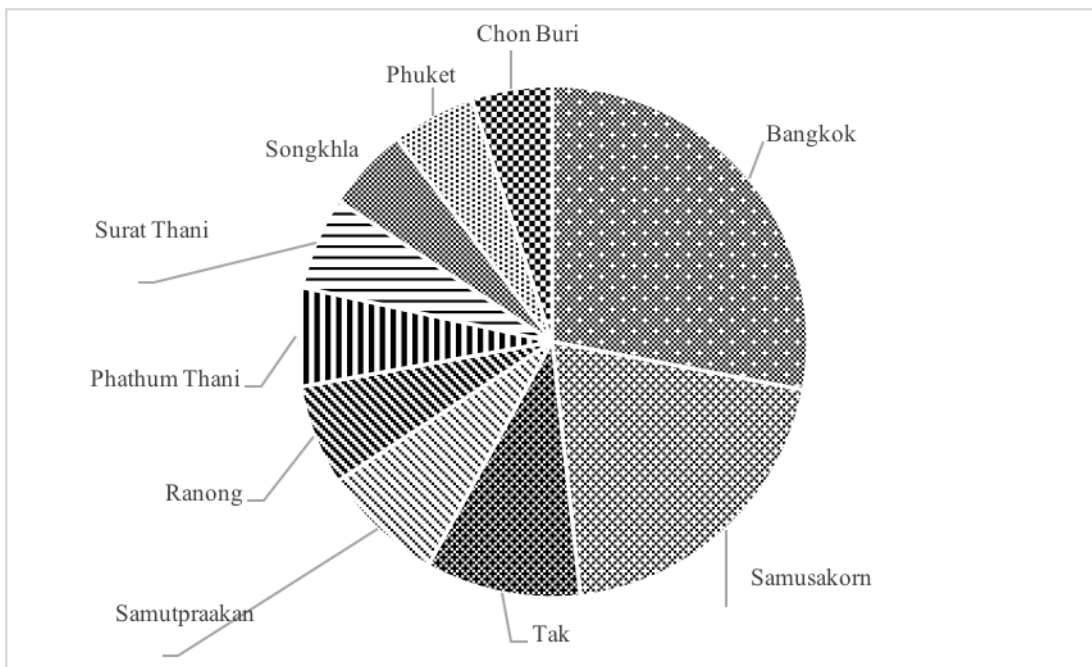
The objective of this paper was to identify determinants of wage inequality among Myanmar immigrants who work in Thailand, especially in agricultural and agricultural related industries. This study used a comparative analysis of the earning among agricultural workers such as farm workers and agro-industry workers. The survey areas were chosen in Tak province, Thailand, which is one of the top populated areas of Myanmar immigrants, one of a special economic zones in the border areas, and also the first phase of the special economic development zones. Furthermore, agricultural practices in Tak province are still labor-intensive.

Figure 1. Myanmar Immigrants Working in Top Sectors in Thailand, 2011



Source. Chantavanich (2012).

Figure 2. Myanmar immigrants working in top ten provinces in Thailand, 2012



Source. Chantavanich & Vungsiriphisal (2012).

There were many explanations of wage differentials depending on their human capital characteristics, job characteristics, and demographic characteristics. Human capital characteristics, such as education, work experience and language are the most important characteristics of improving immigrants' earnings (Kwon, 2009). Mincer (1997) explained that different wages among workers were due to differences in human capital

characteristics. In other words, workers who have greater human capital are associated with greater income and higher salaries. Job characteristics are also one of the reasons for the earnings inequality. For example, two individuals with the same personal characteristics could have different incomes if they work in different industries or occupations (Pozo, Mera, & Ollero, 2011). Workers who have longer hours of work can improve their wages in the future and receive the promotion. The worked hours is positively related to earnings (Gurung & Bell, 2013). Several of demographic and background characteristics, such as age, gender, race and ethnicity, geographic region, marital status, and legal status are found to influence the immigrant wages (Thrane, 2008).

METHODOLOGY

Empirical Model

Previous studies had found that wage differential among immigrants were determined by human capital characteristics, job characteristics and demographic characteristics (Rivera-batiz, 1999) which was taken into account in this study. Daily wages, the dependent variable, were transformed into the logarithm because the highest earnings or the extreme earnings could give misleading outcomes (Dodoo, 1991). Using the logarithm transformation reduced the effect of distribution earnings of different types of workers such as farm workers and agro-industry workers as in equations 1 and 2 (Petersen, 1989).

Human capital, job, and demographic factors including age, gender, daily wage, working time, over time hours, and total fringe benefits reflect skills and knowledge were acquired and valued mainly for their productivity potential in an economic sense (Becker, 1962). The explanation of earnings differentials or inequality was that people of different characteristics received the payment they deserved according to their human capital investments. Within this framework, a great number of studies in labor economics had aimed to disentangle various ways in which earnings or wage differentiation arises (Mincer & Polachek, 1974).

The determinants of wage differentials were included as explanatory variables of the wage model as follows:

$$\ln Y_i = a + b_{1i}Edu_{1i} + b_{2i}Exp_{2i} + b_{3i}Speaking_{3i} + b_{4i}Reading_{4i} + b_{5i}Writing_{5i} + b_{6i}Age_{6i} + b_{7i}Gen_{7i} + b_{8i}Married_{8i} + b_{9i}Political_{9i} + b_{10i}Social_{10i} + b_{11i}Economic_{11i} + b_{12i}Job_{12i} + b_{13i}No.Household_{13i} + b_{14i}Legal_{14i} + b_{15i}Area_{15i} + b_{16i}Working\ hours_{16i}$$

(1)

$$\ln Y_j = a + b_{1j}Edu_{1j} + b_{2j}Exp_{2j} + b_{3j}Speaking_{3j} + b_{4j}Reading_{4j} + b_{5j}Writing_{5j} + b_{6j}Age_{6j} + b_{7j}Gen_{7j} + b_{8j}Married_{8j} + b_{9j}Political_{9j} + b_{10j}Social_{10j} + b_{11j}Economic_{11j} + b_{12j}Job_{12j} + b_{13j}No.Household_{13j} + b_{14j}Legal_{14j} + b_{15j}Area_{15j} + b_{16j}Working\ hours_{16j} + b_{17j}Overtime\ hours_{17j}$$

(2)

where

$\ln Y_i$ = the natural logarithm of the combination of total fringe benefits and daily wages for i farm workers group

$\ln Y_j$ = the natural logarithm of the combination of total fringe benefits and daily wages for j agro-industry workers group

a = the initial earning capacity

$b_1, b_2, b_3, \dots, b_{17}$ are estimator coefficients of explanatory variables in Table 1.

Table 1.

Variables, Definition and Unit of Measurement of Wage Model

Variables	Definition	Unit of measurement
Human Capital characteristics		
Edu	Education	0 if no education, 1 if primary school, 2 if middle school, and 3 if high school
Exp	Experience years of working in current job	years
Speaking	Speaking skill of Thai language	0 if very poor, 1 if poor, 2 if normal, 3 if well, and 4 if excellence
Reading	Reading skill of Thai language	0 if very poor, 1 if poor, 2 if normal, 3 if well, and 4 if excellence
Writing	Writing skill of Thai language	0 if very poor, 1 if poor, 2 if normal, 3 if well, and 4 if excellence
Demographic characteristics		
Age	Age	years
Gen	Gender	0 if female, 1 if male
Married	Marital status	1 if mirage and 0 if other such as single and divorce/window
Political	Political reason is the primary reason to migrate	0 if no , and 1 if yes
Social	Social reason is the primary reason to migrate	0 if no , and 1 if yes
Economic	Economic reason is the primary reason to migrate	0 if no , and 1 if yes
Job	Job creation reason is the primary reason to migrate	0 if no , and 1 if yes
No. Household	Number of immigrant household	persons
Legal	Legal status Legal workers are those who have the work permit documents or temporary residential status.	0 if illegal and 1 if legal status
Area	Immigrant worker working area.	0 if Mae Sot district and 1 if Phop Phra district
Job characteristics		
Overtime hours	Over time working hours per day	Hours per day
Working hours	Working hours per day	Hours per day

Data

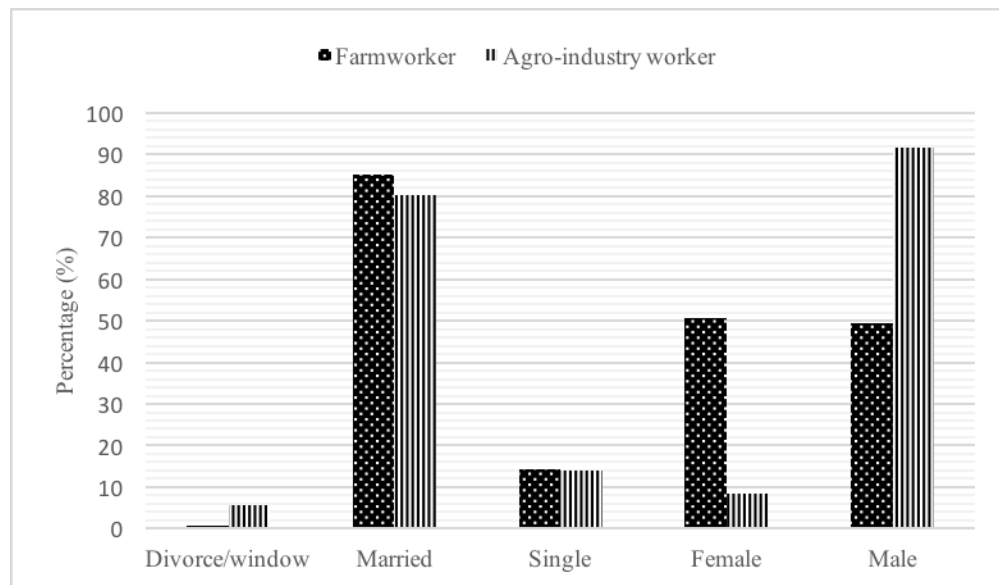
This study focused on Myanmar immigrants who had been working in agricultural and agro-industry sectors in Thailand, especially the main gateway between Thailand and Myanmar i.e., Tak province. Because Tak province is one of the top populated area of Myanmar immigrants, one of a special economic zones in the border areas, and also the first phase of the special economic development zones. Furthermore, agricultural practices in Tak province are still labor-intensive. Hence, almost hundred Myanmar immigrants were hired for pre-harvest and harvesting activities in Thailand (Kulkolkarn & Potipiti, 2009). Data were collected from the agricultural workers who worked in crop production and agricultural related industries in Mae Sot and Phop Phra districts, Tak Province. Using snowball sampling, the data were collected from a small group of agricultural workers and other participants who had the experience in crop production and agricultural related works in these areas from November to December in 2016. This method was used in response to overcoming the problems related with hidden populations (Faugier and Sargeant, 1997). The snowball sampling method has several advantages in hidden populations such as drug consumers, people with deviant sexual behavior, illegal immigrants, or people working in the black market (Dragan and Isaic-Maniu, 2013). The total sample was 368 persons. Two hundred and sixty-one were farm workers and one hundred and seven were agro-industry workers who worked in the combined use of agricultural and industrial processes or methods such as in the production of food, chemicals and fertilizers and seed production industries.

RESULTS AND DISCUSSION

Demographic Characteristics

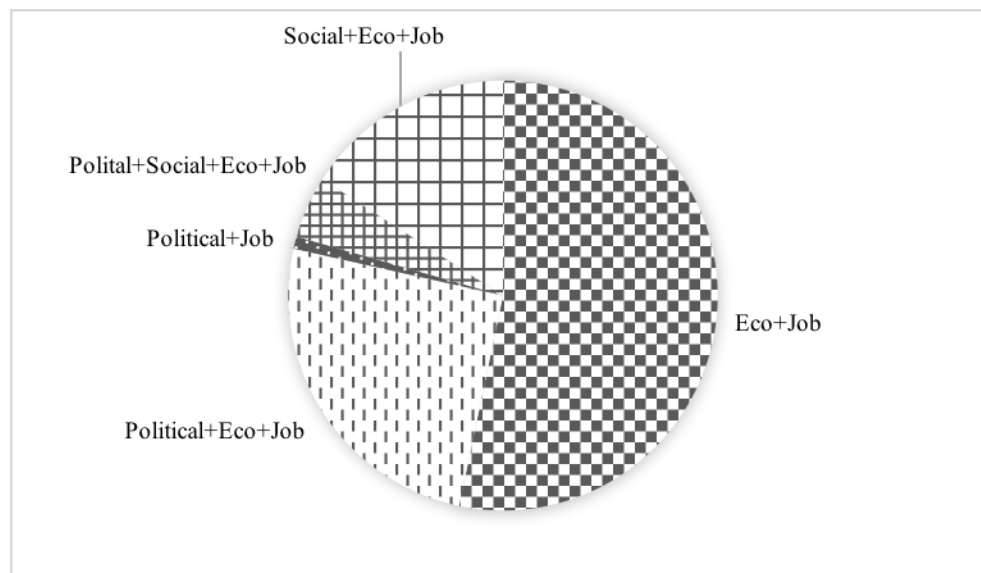
Among farm workers, 49.43% was male and 50.57% was female, while 91.59 % was male and 8.41% was female in the agro-industry workers. The number of female agro-industry workers was relatively low because some agro-industries such as chemical industry working with hazardous chemicals, working with equipment and for prolonged hours, including late night and outdoor tasks, loading and unloading working did not allow female workers. More than 80% of respondents were married in both groups of farm workers and agro-industry workers (Figure 3). Moreover, 48.66 % of farm workers and 53.27% of agro-industry workers migrated to Thailand mainly because of economic reasons and job creations, and the second reason was the combination of social, economic and job creations accounting for 38.70% of farm workers. However, the second reason to migrate among agro-industry workers was the combination of political, economic and job creation, accounting for about 25.23% as shown in Figure 4. Furthermore, 82.75 % of farm worker were illegal. Other 17.25 % had temporary residential card or Tor Ror 38/1 (TR.38/1) that was non-Thai identification card including 13 digits with temporary work permits for two years (Huguet & Chamrathirong, 2011). Conversely, 65.42% of agro-industry workers had no document at all, but one third of them had temporary residential cards (Figure 5).

Figure 3. Marital Status and Gender of Myanmar Immigrant Agricultural Workers in Tak province, Thailand, 2016



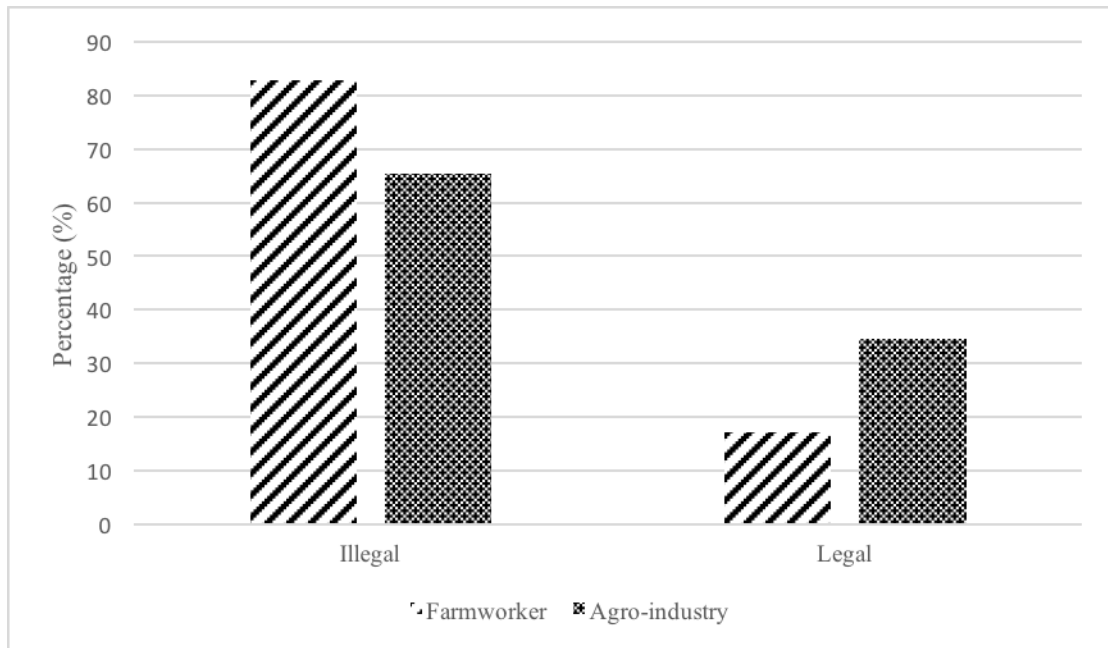
Source. Authors.

Figure 4. Share of Reasons to Migrate among Myanmar Immigrant Agricultural Workers in Tak province, Thailand, 2016



Source. Authors.

Figure 5. Share of Myanmar Immigrant Agricultural Workers by Legal Status in Tak Province, Thailand, 2016

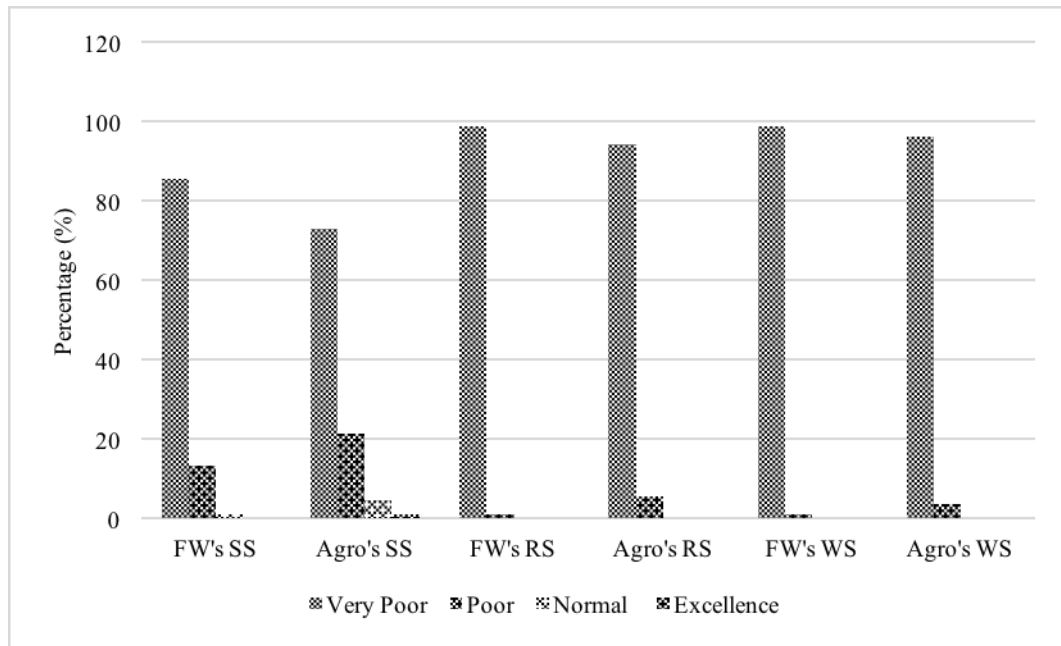


Source. Authors.

Human Capital Characteristics

By comparing the human capital characteristics, agro-industry workers were more skillful than farm workers. Firstly, working experience was the main important characteristic for low skilled workers; agro-industry workers had more experience than the farm workers. Moreover, the Thai language skill was divided into three skills including speaking, reading, and writing, and each individual skill was categorized into five levels as level 0 (very poor), level 1 (poor), level 2 (normal), level 3 (well), and level 4 (excellence). Most of both types of workers had level 0 (very poor) in all three skills. However, the agro-industry workers had higher skills than farm workers (Figure 6). In addition, the education level was categorized into four levels: illiterate (no education), primary school, middle school and high school. Primary school level had the largest share for both types of workers. The second largest education level was middle school, followed by illiterate for farm workers and middle school for agro-industry workers (Figure 7).

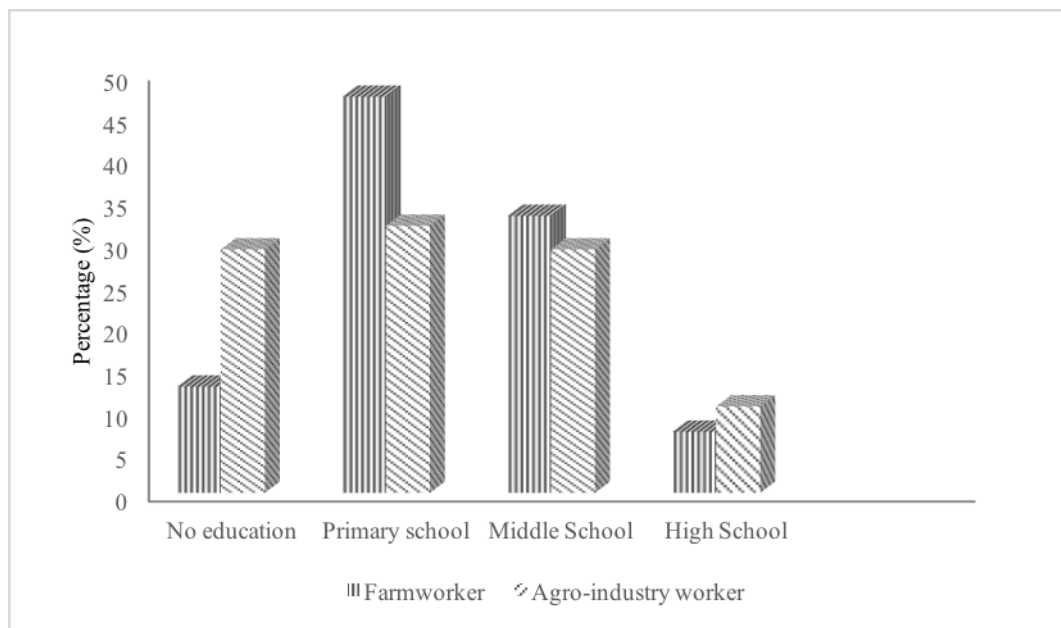
Figure 6. Share of Myanmar Immigrant Agricultural Workers by Language Skill in Tak province, Thailand, 2016



Source. Authors.

Notes. FW= farm workers, Agro=Agro-industry workers, SS=speaking skill, RS=reading skill, WS=writing skill.

Figure 7. Share of Myanmar Immigrant Agricultural Workers by Education Level in Tak Province, Thailand, 2016



Source. Authors.

Comparison of Characteristics between Farmworkers and Agro-Industry Workers

The estimated results of wage differential model are shown in Table 2. It was found that gender balance was obviously different in these two groups. Share of workers who were legal in farm was significantly less than agro-industry workers. The agro-industry workers' education and Thai language skill were significantly greater than the farmworkers.

The average daily wage of farm workers was 148.59 THB/day, and working hours per day was 8.13 with no overtime payment. Total net fringe benefit that was an addition to wages as the form of cash, goods or services was converted into cash per day. The fringe benefit of farm worker was 28.85 THB/day. On average, agro-industry workers received 188.65 THB/day, and worked about 8.84 hours/day with overtime payment of 49.74 THB/day for 2.12 hours of overtime per day. Thus, overall earning per day of agro-industry workers was nearly 238 THB/day. The daily wage of workers who worked in farm was significantly less than agro-industry workers and there was no overtime payment for farmworkers because agro-industry workers had great human capital characteristics than farmworkers. Furthermore, the benefit provided by the employer for agro-industry workers was significantly different from the farmworkers and was significantly greater than the farmworkers.

Table 2.

Comparison of Agricultural Worker's Characteristics

Variable		Farmworkers		Agro-Industry workers		t-value/ chi ²
Demographic characteristics						
		sample	%	sample	%	t-value/chi ²
Gender	Male	129	49.430	9	8.410	57.080***
	Female	132	50.570	98	91.590	
	Total	261	100.000	107	100.000	
Marital status	Divorce/window	2	0.770	6	5.610	1.219 ^{ns}
	Married	222	85.060	86	80.370	
	Single	37	14.180	15	14.020	
	Total	261	100.000	107	100.000	
Remittance	Cannot send	213	81.610	88	82.240	0.0205 ^{ns}
	Can send	48	18.390	19	17.760	
	Total	261	100.000	107	100.000	
Legal status	No document	216	82.750	70	65.420	13.173***
	Tor Ror 38/1	45	17.250	37	34.580	
	Total	261	100.000	107	100.000	
Human Capital Characteristics						
Language skill						
Speaking skill	Very poor	223	85.440	78	72.900	11.380***
	Speak poor	35	13.410	23	21.500	
	Speak normal	3	1.150	5	4.670	
	Speak Excellence	0	0	1	0.930	
	Total	261	100.000	107	100.000	

Table 2. (Cont.)

Variable		Farmworkers		Agro-Industry workers		t-value/ chi ²
Human Capital Characteristics						
		sample	%	sample	%	t-value/chi ²
Reading skill	Very poor	258	98.850	101	94.390	6.320**
	Read poor	3	1.150	6	5.610	
	Read normal	0	0	0	0	
	Read Well	0	0	0	0	
	Read Excellence	0	0	0	0	
	Total	261	100.000	107	100.000	
Writing skill	Very poor	258	98.850	103	96.260	2.720**
	Write poor	3	1.150	4	3.740	
	Write normal	0	0	0	0	
	Write Well	0	0	0	0	
	Write Excellence	0	0	0	0	
	Total	261	100.000	107	100.000	
Education	No education	33	12.640	31	28.970	17.040***
	Primary school	123	47.130	34	31.780	
	Middle School	86	32.950	31	28.970	
	High School	19	7.280	11	10.280	
	Total	261	100.000	107	100.000	
		33	12.640	31	28.970	17.040***

Table 2. (Cont.)

Variable	Farmworkers		Agro-Industry workers		t-value/ chi ²
Job Characteristics					
	sample	%	sample	%	t-value/chi ²
	Mean	Std.Dev	Mean	Std.Dev	t-value
Daily wage (Baht)	148.590	11.080	188.650	40.050	-14.850***
Working hours per day(Hours)	8.140	0.350	8.840	0.370	-38.710***
OT per day(Baht)	0	0	49.740	12.610	-17.410***
OT hours per day(Hours)	0	0	2.120	0.370	-44.750***
Total benefit per day (Baht)	28.860	8.890	47.970	26.620	-10.290***
Daily wage (Baht)	148.590	11.080	188.650	40.050	-14.850***
Working hours per day(Hours)	8.140	0.350	8.840	0.370	-38.710***

Notes. *, **, and *** are significant levels at 10%, 5%, and 1%, respectively. ns means that non-significant.

Determinants of Wage Differentials

Table 3 showed the characteristics of immigrant related to wages. The results complied with the human capital characteristics in other studies. Language skill was the important factor related to immigrant earnings. Moreover, language skill such as speaking skill had the positive effect on agro-industry workers earnings similar to what was found by Dustmann & Van Soest (2002). However, education level of farm workers affected on their wages significantly. The same result as Lemieux (2006) as that earning inequality within workers was increased due to the different levels of education.

In this result, male earned more than female in both farm workers and agro-industry workers. Because male workers were more educated and had more Thai language speaking skill than female workers, then female were not allowed or not able to do in some activities such as spraying chemical, loading or unloading the products and so on as the same result as Grybaite (2006) and Hertz, Winters, De La., et al., (2008). The location of the working area effected on wages. The farm workers who worked in the Mae Sot district earned more than the farm workers who worked in Phop Phra district because Mae Sot district is one of the Special Economic Zone (SEZ) with the implementation to support high labor intensive industries (Sadao & Besar, 2015). However, the agro-industry workers who were in Phop Phra district received the earnings more than who were in Mae Sot district because all agro industry workers in Phop Phra district had the proper documents (Tor Ror 38/1).

Constant & Massey (2005) stated that earnings were different depending on the primary migration reasons such as political reason, economic reason and so on although their result showed no clear wage differences related with migration reasons. However, this research found that the primary reasons such as social reason was influent indirectly on wages for both types of workers. The farm workers with the social reasons had higher education levels while the agro-industry workers with the social reasons had better destination speaking skill than their counterparts. The social reasons of immigrants were the migration of spouse, family, or relatives and the lack of basic infrastructure of the home country, so they decided to migrate in order to improve their social situation.

Legal status impacted on immigrants' earnings positively in both types of workers because the legal workers had the higher human capital characteristics such as education level, host language skill and experience than the illegal workers. Nisbet (2013) and Rivera-batiz (1999) found the same outcomes. Bell & Freeman (2001) examined the hours worked positively affected on the wages of workers and the same result were found in this study.

Table 3.

Coefficient Estimates Using Regression Analysis of Wages

Ln daily wage	Agro-industry workers			Farmworkers		
	Coef.	Std. Err.	t-value	Coef.	Std. Err.	t-value
Human capital characteristics						
Education(years)	0.009	0.012	0.820 ^{ns}	0.012	0.005	2.320**
Experience(years)	0.002	0.003	0.490 ^{ns}	-0.001	0.001	-1.000 ^{ns}
Thai speaking skill	0.097	0.021	4.580***	-0.006	0.010	-0.560 ^{ns}
Thai reading skill	0.098	0.096	1.020 ^{ns}	-0.054	0.036	-1.490 ^{ns}
Thai writing skill	0.055	0.118	0.470 ^{ns}	-0.005	0.034	-0.130 ^{ns}
Demographic characteristics						
Age (years)	0.001	0.001	1.370 ^{ns}	0.000	0.000	0.840 ^{ns}
Gender	0.266	0.083	3.20***	0.085	0.008	11.010***
Marital Status	0.024	0.026	0.940 ^{ns}	0.004	0.012	0.310 ^{ns}
Political reason	-0.008	0.025	-0.320 ^{ns}	0.014	0.012	1.150 ^{ns}
Social reason	0.067	0.025	2.70***	0.013	0.008	1.690*
Economic reason	0.073	0.078	0.950 ^{ns}	-0.003	0.045	-0.080 ^{ns}
Job reason	0.022	0.104	0.210 ^{ns}	-0.038	0.060	-0.620 ^{ns}
No. of household	-0.004	0.006	-0.620 ^{ns}	0.003	0.002	1.020 ^{ns}
Area (working area)	0.086	0.039	2.160**	-0.113	0.012	-9.620***
Legal status	0.080	0.032	2.550**	0.065	0.014	4.620***
Job characteristics						
Working hours per day	-0.063	0.047	-1.340 ^{ns}	0.036	0.014	2.520**
Overtime hours per day	0.044	0.030	1.470 ^{ns}	n/a	n/a	n/a
_cons	5.597	0.414	13.500***	4.864	0.136	35.630**

Notes. *, **, and *** are significant levels at 10%, 5%, and 1%, respectively. ns means that non-significant.

CONCLUSION

In Thailand, Immigrants from Myanmar who have been working in agricultural sector earned the lowest earning rate than other sectors. Among these workers, earnings were different because of their characteristics. Earnings were influent on characteristics such as demographic, job and human capital characteristics. One of the most important characteristics was human capital characteristics. However, the human capital characteristics of farm workers did not impact on earnings as farm works did not require any special skills. On the other hand, agro-industry workers' earning was related with human capital characteristics such as language skill because this type of works required more skills such as repairing the machines, and speaking skill of host countries language to learn from the natives.

Location of the working area was influent on the earnings. Agro-industry immigrants who worked in Phop Phra district received more wage than immigrants in Mae Sot district. Farm workers' immigrants who worked in Mae Sot districts received more wages than Phop Phra district. Type of workers who had documents impacted highly significant on the wages among workers. Moreover, male workers were statistically significant on earning because agricultural sector is one the most dangerous sector to handle hazardous materials and to face environmental effect. Migration with the several reasons did not effect on the wage and workers' age were not influent on the wage. However, the levels of immigrants' characteristics were difficult to improve the wages while the legal status improved the wages easily.

The results were calculated based on Tak province which has labor intensive industries such as agriculture. The results might not be generalized to the nation-wide level but were compact and could provide promising conclusions as follow. By the information this paper suggested that Policy makers should mainly focus on legalizing the immigrant worker's legal status documentation. Policy makers must help immigrant workers getting their status legal by cooperating with their respective governments such as Myanmar, Cambodia, and Laos. Immigrant workers having legal status document will not only dramatically improve their income but also ease the security concerns of host country's local communities such as preventing some unwanted crimes. Moreover, the government will be able to collect taxes from immigrant workers and invest those taxes to develop the local region by building the required infrastructures which will make the local region to a more developed economic zone. Accordingly, those developed economic zone with minimal security concerns will invite more investors from domestic or international. In addition, for improving the income of immigrant workers, the local community's economic market will also blossom. The immigrant workers will also have some income to spend on learning host country languages which will improve their characteristics. As a result, the productivity of the industry or farm in those region will increase.

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**IMPACT OF MICROFINANCE ON
ECONOMIC CONDITION OF PEOPLE OF INDORE DISTRICT IN INDIA**

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ABSTRACT

The present research conducted in Indore district, focuses on rural, urban industrial, service sector class and the people of slum areas who become self employed after accessing microfinance. The present study is descriptive in nature. Considering the nature and objectives of the study, this paper put stress on finding the answer of research question: how the services of microfinance helps in improving the economic condition of users? The foundation of study was based on both primary as well as secondary data. Primary data were collected by designing a structured questionnaire, which was administered to 500 respondents of Indore. Stratified sampling technique was adopted. The secondary source of information were made available from various journals, books, etc. To study the role of microfinance on economic conditions of the microfinance users, regression model is used. The results showed that the interest rate for loan is showing no impact on economic conditions of microfinance users but through easy availability of microfinance services, usage of microfinance for productive purposes and easy installment facility services has shown improvement on the economic condition of users.

KEY WORDS: Microfinance, economic condition, financial sectors

INTRODUCTION

India is one of the developing countries in the world where poverty is reckoned as major problem. Since independence, the country put stress on providing financial services as assistance to poor people. During early 1980's, the banking policies, procedures and systems were not suitable to meet the needs of poor. Absence of credit facility to under privileged people is the main root due to which they are not able to come out of poverty. Demand of credit is high but supply is near to the ground. This gap does not merely arises due to shortage of funds in financial sectors; however it arises because financial sectors does not show interest in lending money to poor as this process becomes costly for them. Lending to poor involves high transaction cost and risk associated with moral hazards. Therefore, commercial banks and other lending Institutions overlook underprivileged people. This leads to unequal distribution of wealth and resources and poor people become poorer. Taking into the consideration, micro finance Institutions were introduced by government for the welfare of poor society so that they can avail the benefits of micro credit services. Micro financing is considered as a tool for socio-economic upliftment. It plays a vital role in poverty alleviation and development. Mohammed Yunus was awarded the Noble Prize for application of the concept of microfinance, with setting up of the Grameen Bank in Bangladesh. NABARD recommended that alternative policies, systems and procedures should be applied to save the poor from the clutches of moneylenders. Thus, the concept of microfinance was introduced in banking sector. In the article of Nagayya, D. (2000) it was discussed that, NABARD and SIDBI plays a prominent role by offering financial services for the proper implementation of this programme. SIDBI has established a foundation for microcredit to the rural poor. NABARD has set up a micro finance development fund. There are also other national level bodies supporting NGOs or Voluntary Associations such as: Rashtriya Mahila Kosh (RMK) and Rashtriya Gramin Vikas Nidhi (RGVN), which are taking care of these programmes.

The present study is focus on "Indore District" of Madhya Pradesh state in Central India which is well known for its agricultural sectors. Gradually, this district is also performing well in industrial sector. Most of the people engage themselves in agriculture while some of them engage in trading of cloth or are self-employed in micro enterprises categorized as small shop keeper, person running their own little kiosk or a cart rider (thelewala) etc. These people take loan to fulfil their day today needs. But there are also some questions which arise in the mind of researcher. The questions may be how effective are the groups in managing their financial transactions? Who is really benefiting? Do the poorest benefit, do they not join at all or if they do join, are they more likely to drop out?

As per the report of Goetz and Sengupta (1996) micro credit is an empowering tool for rural women has in recent years come under close and in some circumstances the study comes up with negative impact. Therefore, it is essential to know that how the services of microfinance evolves as a tool in eradication of poverty, women empowerment, bringing psychological and socio economic upliftment and ultimately generate the opportunity amongst the people of Indore District in becoming self-reliant. In the article of Shankar & Asher (2010) the need for regulation of MFIs, some recommendations to regulate them and challenges involved in regulating them have been given. The poor and uneducated peoples are least aware about availability of financial products in the market that would minimize uncertainty and risk, therefore, it becomes the responsibility of the MFIs to offer the right product and spread information about working style of MF and advantage gained

by these people by investing in MF with future aspects. Biradar (2013) examined the impact of microcredit on poverty and find out that solution to overcome poverty. At the same time he also pointed out that microfinance is not only a solution for poverty eradication, but also helps in generation of income activity considering the interest of the members. Kapilananda Mondal (2014) has pointed out that the microfinance sector has developed with immense achievement. This requires client focused, process-oriented, and have a holistic approach with sustainable impact as its goal. Mazumdar Mohummed ShofiUllah et al (2015) analyzed the impact of different microfinance providers on basic rights and quality of life of microfinance users. For this purpose, data was collected from 300 respondents availing microfinance and 200 control respondents. In his study, descriptive statistics, factor analysis, multiple regression, propensity score matching and treatment effect models were covered. The study at the end concluded that there is an increase in basic rights of respondents, the quality of life also get improve, and positive change has been seen in social issues like AIDS, drugs, alcoholism etc.

AIM OF THE STUDY

Due to high cost living in Indore, the survival of low-income group people becomes quite difficult and unaffordable which adversely influence their socio-economic conditions. This compelled people to commence their own micro-enterprises at part time and full time level. Although Indore District is progressive, culturally diversified and adaptive in nature, there is a need to figure out what low-income sections do for the survival of living, how they start up their ventures? This study is an attempt to measure the impact of micro finance on economic condition of people of Indore District.

HYPOTHESES

- H1: The loan amount taken by the users has no impact on economic conditions of microfinance users.
- H2: The interest rate for loan has no impact on economic conditions of microfinance|users.
- H3: The easy availability of microfinance has no impact on economic conditions of microfinance users.
- H4: Use of microfinance for productive purpose has no impact on economic conditions of microfinance users.
- H5: The installment facility has no impact on economic conditions of microfinance users.

RESEARCH METHODOLOGY

Design and Sample

The study has been conducted in Indore district is descriptive in nature. The foundation of study is based on both primary as well as secondary data.

Primary Data: The primary data is collected mainly from microfinance users. An interview schedule was canvassed to the selected users of microfinance users in the study area to collect the data.

Secondary Data: The secondary data were collected from several books, journals, articles and annual reports as well as published documents of NABARD and Reserve Bank of India.

Indore district consist of six Tehsils: Depalpur, Sanwer, Indore, Mhow, Hatot and Rau. Therefore, the prime criterion for choosing a particular district is to focus on rural, urban industrial, service sector class and the people of slum areas who become self-employed after accessing microfinance services. In this study, 500 respondents had been surveyed from six Tehsils of Indore district. Out of 500 respondents, 100 respondents are selected from Indore, Sanwer and Mhow blocks, each are 20 percent of total respondents. 14 percent (70 Respondents), 13 percent (65 Respondents) and 13 percent (65 Respondents) of the respondents are selected from Depalpur, Hatod and Rau respectively. A stratified sampling technique has been adopted in the present study.

Before data analysis processes, the reliability of collected data is tested through SPSS version 20. The required data were analyzed and inferences/interpretations have been made.

Cronbach's alpha coefficient is calculated in Table 1 showing reliability of the instrument.

Table 1.

Reliability Statistics

Cronbach's Alpha	No. of Items
0.654	10

FINDINGS

Table 2.

Descriptive Analysis

Gender	No. of Respondents	Percent
Male	25	5.0
Female	475	95.0

Table 3.

Marital Status

Married	482	96.4
Single	18	3.6

Table 4.

<i>Age Group</i>		
18-25	47	9.4
26-35	255	51.0
36-45	162	32.4
46-60	36	7.2

Table 5.

<i>Duration of Association</i>		
Within 1 Year	193	38.6
For last 1-3 Years	155	31.0
For last 3-5 Years	98	19.6
More than 5 Years	54	10.8

Table 6.

<i>Loan Amount</i>		
Up to Rs. 5000	18	3.6
Rs. 5000 – 8000	67	13.4
Rs. 8000 – 10000	95	19.0
Rs. 10000 – 12000	156	31.2
Rs. 12000 – 15000	138	27.6
Above 15000	26	5.2

Table 7.

<i>Interest Rate (per annum)</i>		
Upto 17%	0	0
18% to 23%	302	60.4
24% and above	198	39.6

Table 8.

<i>Family Monthly Income (Per Month)</i>		
Up to Rs. 3000	35	7.0
Rs. 3000- Rs. 5000	89	17.8
Rs. 5000- Rs. 8000	223	44.6
Above Rs. 8000	153	30.6

Table 9.

Family Monthly Expenditure (Per Month)

Up to Rs. 3000	118	23.6
Rs. 3000-Rs. 5000	226	45.2
Rs. 5000-Rs. 8000	138	27.6
Above Rs. 8000	18	3.6
Total	500	100.0

To study the role of microfinance on economic conditions of the microfinance users, in Indore district a regression model have been used. The model is as follows:

$$\text{Model 1: } Y_1 = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + U_t$$

Where, Ys are dependent variables and Xs are independent variables.

Y_1 is economic conditions of microfinance users.

X_1 is loan amount taken by users in microfinance

X_2 is the interest rate for loan

X_3 is the availability of Microfinance

X_4 is use of microfinance for unproductive purpose

X_5 is installment facility

β_0 is the intercept of regression equations.

β_1 is the coefficient of loan amount taken by users in microfinance

β_2 is the coefficient of the interest rate for loan

β_3 is the coefficient of availability of Microfinance

β_4 is the coefficient use of microfinance for unproductive purpose

β_5 is the coefficient of installment facility

U_t is the error term

The F ratio (ANOVA) is 76.209 was statistically significant at 1 percent level of significance. Therefore, the model was acceptable.

Table 10.

Impact of Microfinance on Economic Conditions of the Users

R^2	= 0.435					
Adjusted R^2	= 0.430					
Std. Error of the Estimate	= 0.75515227					
ANOVA (F)	= 76.209					
Independent Variable	Un-standardized Coefficients		Standardized Coefficients	t' stat	Sig.	
	B s	Std. Error	Beta			
(Constant)	1.200E-16	0.034		0.000	1.000	
Loan Amount taken by users (X_1)	0..571	0.034	0.571	16.822	0.000	H1 Rejected
Interest Rate paid by users (X_2)	-0.048	0.034	-0.048	-1.425	0.155	H2 Accepted
Availability of Microfinance (X_3)	-0.118	0.034	-0.118	-3.448	0.001	H3 Rejected
Use of MF for productive purpose (X_4)	0.237	0.034	0.237	6.978	0.000	H4 Rejected
Installment Facility (X_5)	0.061	0.034	0.061	1.787	0.075	H5 Rejected

H1: The Loan Amount Taken by the Users Has No Impact on Economic Conditions of Microfinance Users

People generally take loan to change the economic condition by operating their own business. After having expenditure they try their best to save some amount with the future hope to improve standard of living.

The coefficient of loan amount taken by the users is positive. The t'stat is 16.822 ($p < 0.01$). Thus, the null hypothesis is rejected at 1 percent level of significance. Therefore, the loan amount taken by the users is showing positive impact on economic conditions of microfinance users. If loan amount increases, users then can run high level business activities and thus economic conditions also becomes better.

H2: The Interest Rate for Loan Has No Impact on Economic Conditions of Micro Finance Users

Users of microfinance pay interest at different rates as per norms of respective company, which directly give impact to economic condition of microfinance users. These users are required to pay interest rate once in a week and a part of their income is spent by paying interest amount. If interest rate charged is high, economic condition of users does not improve and vice versa. This affects life style and reducing purchasing power.

The coefficient of interest rate for loan is negative. The t'stat is -1.425 ($p > 0.10$). Thus, the null hypothesis is accepted at 10 percent level of significance. Therefore, the interest rate for loan is showing no impact on economic conditions of microfinance users.

H3: The Easy Availability of Microfinance Has No Impact on Economic Conditions of Microfinance Users

Users can be confronted with any type of problem in financing through services of microfinance. Availability of microfinance is one of the reasons due to which users likes to get associate with the services of microfinance.

The coefficient of duration in microfinance is negative. The t'stat is -3.448 ($p < 0.01$). Thus, the null hypothesis is rejected at 1 percent level of significance. Thus, availability of microfinance has impact on economic conditions of microfinance users. If services of microfinance are available easily then economic condition improves and vice versa.

H4: Use of Microfinance for Productive Purpose Has No Impact on Economic Conditions of Microfinance Users

Productive purpose means micro loans are used for making investment in own business other than non-business purpose. The coefficient of use of microfinance for productive purpose is positive. The t'stat is 6.978 ($p < 0.10$). Thus, the null hypothesis is rejected at 1 percent level of significance. Therefore, usage of microfinance for productive purpose has positive impact on economic condition. This indicates that if users spend loan amount for their business purposes rather than personal and non-productive use, economic condition of respondent's improves.

H5: The Installment Facility Has No Impact on Economic Conditions of Microfinance Users

The installment facility has been given to microfinance users with an expectation that they would not feel any burden at the time of loan repayment and protecting them against paying lump sum amount.

The coefficient of installment facility is positive. The t'stat is 1.787 ($p < 0.10$). Thus, the null hypothesis is rejected at 10 percent level of significance. Thus, installment facility shows positive impact on economic condition, as there is some relaxation is given in paying repayment of loan, which does not affect their business activities.

SUGGESTION

In Indore a large proportion of people are engaged in agricultural or industrial sector that fall within below poverty line category. It has been observed that most of the microfinance users are female and are married. These people are considered to be mature enough as they have to maintain the proportion between saving and expenditure. Maximum number of respondents is in the age group of 18-45 years who are associated with the services of microfinance. This age group people are considered as risk taker and are in position to pay the credit amount taken from institutions. With the help of credit facilities provided by micro finance institutions, these people are able to start up their own petty business or expand their existing business. Some of the following suggestions are given below in this regard:

The microfinance institutions should review the frequency of payment of installment amount. Payment options should be given as per users convenient whether they want to make pay weekly / fortnightly or monthly basis.

Every member in a group gets loan amount turn-wise. This loan amount should be disbursed according to requirement of needy people.

Sometimes loan amount is not sufficient to meet the capital require at the time of commencement of business. Hence, it is highly recommended that MFIs should provide training about self-employment related occupation at the time of loan disbursement.

LIMITATIONS OF THE STUDY

At the time of collecting data biasness might occurs in the responses of respondents. This study has focused on Indore District only; therefore, the entire result cannot be generalized for other district or state.

CONCLUSION

Employment is considered as one of the important factor through which economic condition improves. However, in Indore district most of the people associate themselves in informal sectors and are not earning sufficient income so as to bring their families above poverty line. Therefore, it is necessary to introduce and make aware about the benefits of microfinance programs with which employment opportunities increases. This can be done

by organizing intermittent campaign to let the needy people aware about importance of MFIs, which require friendly behaviour with the new comer for joining his program. This campaign should be organized where groups are gathered at one place. This can be done at work place, haat bazaar, choupals through mass media or nukkad natak, At villages or rural areas schools are also the places where not only the parents but also students would be made aware of SHG and MF programs. Some microfinance Institutions are situated far away from residence. Therefore, it is suggested that in such case delivery channel must be located as per convenience of microfinance users. The data from the above hypotheses proved that microfinance help in improving economic conditions of people, providing them self-employment opportunities and enable the people to expand their business with the increase in income level. Overall, microfinance has provided important contributions to the development of Indore district. It may be concluded here that micro-finance systems are efficient indicators of economic development.

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**THE MODEL OF INTENTION TO BUY AND THE ROLE OF
HABIT AS MODERATOR IN SOCIAL COMMERCE**

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ABSTRACT

At present, the penetration of social network to most area of the world creates new opportunities for business. The development in E-commerce has opened new stream called S-commerce, which is enabled by Web 2.0 technology to create an environment for generating content and social interactions. This discussion used a well-known E-commerce concept, Trust-based consumer decision-making model, as an initiative to propose a new model. In the proposed conceptual framework, three new factors—S-commerce Constructs, Social Presence and Habit— have been added to the model to observe their influences on Intention to Buy. According to prior studies, these factors have not been adequately studied to describe their influence on intention to buy in a context of S-commerce. The objective of this paper is to propose a new conceptual model that can better explain consumers' intention to buy in social network. The model can be used as a guideline for firms that want to improve their customers' intention to buy and to be successful in S-commerce.

KEY WORDS: Social commerce, social network, social media, E-commerce

INTRODUCTION

The development of information and communication technologies began from the earliest or as known as Web 1.0, which is a single-way presentation of information. Later the second generation was known as Web 2.0, a website technology. These technologies have been designed for information to be shared easily, spread rapidly and encouraged freedom of opinion and interaction, and empowered consumers in information generation. Thus, entrepreneurs are using social media as a channel to advertise their products. Moreover, the trend also enables the entrepreneurs to distribute more products and services. Social Media is a low-cost marketing tool. Nevertheless, it is a powerful one. It brings about good relations and trust among consumers (Hays, Page & Buhalis, 2013). According to a research of popular online activities among internet users in Thailand, it shows that

social media is the most popular activity among internet users since 96.1% of internet users are using social media. 59% of internet users have been purchasing products or services online and 33.8% of internet users have been selling products or services online. (ETDA, 2016). This shows Thai internet users have confidence and trust in online shopping, reflecting direction for the expansion of E-Commerce in the future. The rapid development of social media and Web 2.0 has provided a huge potential to transform e-commerce from a product oriented environment to a social and customer oriented one. Intention to purchase in social commerce is an interesting factor to be studied due to the rapid growth and popularity of the social networks used in commercial activity (Huang & Benyoucef, 2013). Through time, more consumers purchase intentions towards social commerce, showing opportunities for entrepreneur to promote products and services.

The popularity of the social media motivated researchers to conduct their study on the factors associated with intention to purchase by using S-commerce channel (Hajli, 2015; Soleimani, Danaei, Jowkar, & Parhizgar, 2016). Previous researchers studied factors of trust, perceived risk, and perceived usefulness. The research on E-Commerce has shown the important factors of the intention to purchase. Although previous researchers studied factors associated with intention to purchases in the context of social commerce, consumer behavior changes all the time including the context of current commercial environment that is flourishing from online purchasing. The authors found that there are some interesting factors that previous researchers have not explored and that no researcher tried to study intention to buy through trust-based consumer decision-making model in context of S-commerce. This initial model helps enriching current knowledge and future study comprehensively. It entails research on S-commerce and other new factors based on trust-based consumer decision-making model from previous study in E-commerce to conceptualize a research model. The research covers consumer perceived benefit, trust, and perceived risk. This study still has factors of S-commerce constructs and social presence that give the opportunities for co-creation, participation, sharing information and collaboration between users. These factors potentially help to increase trust and lead to intention to buy via social networks.

Hence, the authors aim to study social commerce constructs and social presence factor in deep aspect including factor of habit to better explain the effect that influences intention to purchase in the context of social commerce. Thus, entrepreneurs can apply the knowledge gained from this study to accomplish their business goal of using social commerce as another distribution channel.

LITERATURE REVIEW

In order to predict intention to purchase in social commerce, the authors developed a model encompassing the Trust-based consumer decision-making model (Kim, Ferrin & Rao, 2008), social commerce constructs (Hajli, 2015), social presence (Biocca, Harms, & Gregg, 2001) and theory of habits (Chiu, Hsu, Lai, & Chang, 2012)

Trust-Based Consumer Decision-Making Model

This research used trust-based consumer decision-making model to make basic conceptual framework and this model was developed by Kim et.al in 2008, studying factors of trust and risk affecting on the internet consumers' purchasing decision. The result of the study

can be summarized that trust has a strong positive effect on the purchasing intention as well as a strong negative effect on a consumers' perceived risk. Furthermore, perceived risk reduces consumers' intention to purchase, whereas consumers' perceived benefit increases the consumers' purchasing intention (Kim et.al, 2008). However, in this study, perceived benefit is replaced by perceived usefulness since perceived usefulness is more interesting. When consumers use information technology to shop via social network, they need to be aware of the usefulness derived from the information technology. Similarly, information technology must provide useful information or content that eases the usage. Therefore, perceived usefulness helps encourage trust and intention to buy. This study analyzed trust, perceived risk, perceived usefulness and intention to purchase to apply with the factors of social commerce constructs social presence and habits.

Social Commerce Constructs

Social Commerce Constructs are social platforms which have emerged from Web 2.0 and empowered consumers to generate content and share their experiences. They also use others' information, offer advice and share experiences in these platforms as a source for online social support on social networks (Park, Lee & Han, 2007). The results of the past research shown that the relationship between social commerce constructs, trust, perceived risk and intention to buy. For example Hajli, 2015 explains the factor of social commerce constructs in the context of social commerce influences trust. The research shows ratings and reviews that influence the level of consumers' trust, which will lead to increasing in sales. Rating and review also increase the satisfaction of users to buy and/or to sell the products online. When consumers trust the security of e-commerce, they will have intention to buy. Research shows that recommendation and referral by people who have experience in previous purchases have a strong influence on intention to purchase (Chen & Xie, 2005). This is because buyers focus on information and consumers' experience in products and services from previous purchases (Forman, Ghose, & Wiesenfeld, 2008 as cited in Hajli, 2015). In addition, forum and communities hold a group of consumers who exchange information, conversation including advice about products and services which directly influence on intention to purchase of consumers. Furthermore, Mahmood (2013) have concluded that ratings and reviews, recommend and forum and communities can reduce the perceived risk of consumers in social commerce. In summary, the components of social commerce consist of ratings and reviews, recommendation and referral, as well as forum and communities which will help to create trust and reduce perceived risk on social network and lead to intention to purchase on social commerce.

Proposition 1: Social commerce constructs influences positively on intention to buy.

Proposition 2: Social commerce constructs influences negatively on perceived risk

Proposition 3: Social commerce constructs influences positively on trust

Social Presence Theory

Theory of social presence, a study from research on long-distance communication by Short, Williams, & Christie (1976) found that communication media variety affects to the ability of verbal and nonverbal communications (Knapp & Daly, 2011). The advancements of online communities have brought developments. A more recent theory of Social Presence is given by Biocca, Harms, & Gregg, (2001). Their main unit of analysis is the perceived access to another intelligence. They define Social Presence as the

moment-by-moment awareness of the co-presence of another sentient being accompanied by a sense of engagement with others. This research shows that social presence is a multi-dimensional construct in itself, comprising perception of co-presence, psychological involvement, and behavioral engagement. The social presence is associated an individual's ability to demonstrate their state of being in a virtual environment and so signal their availability for interpersonal interactions (Kehwald, 2008). The social presence affects online interaction in social network, self-awareness, and existence of relationships between people on social networks. This factor can be applied in the e-commerce study and can be concluded that an absence of social presence affects success and growth of e-commerce. Social presence endorses and creates relationship between online communities. Moreover, tools on social network contribute to the increasing disclosure of people identity, which is one of the components in social presence (Shen & Khalifa, 2009). Therefore, social commerce is different from e-commerce since it is a one-way communication (Mahmood, 2013). Mahmood, (2013) introduced the factor of social presence, which can be a part of the model and may influence trust and perceived usefulness. Hence, this research has used the social presence theory that is applied to explain the intention to buy in social commerce based on trust-based consumer decision-making model, which trust, perceived usefulness and also intention to buy is determined by social presence.

Proposition 4: Social Presence influences positively on intention to buy.

Proposition 5: Social Presence influences positively on trust

Proposition 6: Social Presence influences positively on perceived usefulness

Perceived Usefulness

Perceived usefulness means perception or belief of people who expect to have usefulness from the use of Information Systems (IS). Perceived usefulness was first introduced by Davis in 1989. Perceived usefulness, along with perceived ease of use, is the two variables of technology acceptance model (TAM). However, TAM is a development of the theory of reasoned action (TRA). TRA was originally designed to describe virtually any human interactions (Davis et al., 1989); this model was used to describe a model for understanding and predicting human behavior whereas TAM was intended to provide an explanation of the determinants of computer acceptance of end-user's computing technologies and user populations. The more useful and straightforward information on a web site, it increases the level of online trust and consequently increases intention to use a system (Yu-Hui & Stuart, 2007; Mei, Qingyu & John, 2005 as cited in as Mahmood, 2013). The research showed the more useful functions that a website provides, such as good information and content, the more trust a customer will have in the website (Yu-Hui & Stuart, 2007). This study confirmed that perceived usefulness can affect trust and also influences on intention to buy. Many authors believe that perceived usefulness affects users' intentions to use e-commerce (Gefen & Straub, 2004). Thus, the construct is applied here in social commerce as well because social commerce is a part of e-commerce and perceived usefulness is more interesting. When consumers use information technology to shop via social network, they need to be aware of the usefulness derived from the information technology. Similarly, information technology must provide useful information or content that eases the usage. Therefore, the perceived usefulness helps encourage trust and intention to buy. Literature has found evidence of a relation between perceived usefulness, trust and intention to buy in social commerce which is also a form of IS when the consumers are perceived a useful of IS for online shopping. Consumers will trust the system if the

system ease their use. The system trust will, eventually, reflect the consumer's trust. This trust also affects to intention to buy. Perceived usefulness has a direct affect to intention to buy, such as the consumers' perceived usefulness the system being used as a distribution channel that help and support the convenience of online shopping. When the consumers feel comfortable with a web site, they will have more trust in social commerce.

Proposition 7: Perceived usefulness influences positively on trust

Proposition 8: Perceived usefulness influences positively on Intention to buy

Perceived Risk

The perceived risk is defined as the subjective expectations of consumer of loss. Perceived risk plays a key role in assessing consumers and their purchasing behavior, especially in the online environment. (Marcelo, Michel, Marie-Odile & Axel, 2012 as cited in Soleimani et al, 2016) Now, it has been proved that the perceived risk is a major obstacle to grow online commerce, such as information that inputs into the system leaking to third parties. Perceived risk is used for studying customers' behavior from past to present in the context of e-commerce. The research from Corbitt, Thanasankit & Yi, (2003) shows that perceived risk affects trust in online purchasing. The activities related to privacy and security in e-commerce websites that positively affect the probability of online shopping (Miyazaki & Fernandez, 2000). The research of Jacoby & Kaplan (1972) had identified seven types of risks: financial, performance, physical, psychological, social, time, opportunity cost risk and information risk (security and privacy) for example the product risk may turn out to be defective. Financial risk, including opportunity cost and time, is not related to the product. Information risk is associated with transaction security and privacy; for example, the requirement that a consumer submits credit card information through the internet. Moreover, Featherman & Hajli, (2016) examined the perceived risk in social commerce. The results of the research indicated that the perceived usefulness and the desire to use are reduced when increasing the risk of consumer in social commerce. The consumers are concerned about the privacy risk because it has a negative effect on consumers' attitude toward behavior of sharing information and the desire to disclosure information (Hajli & Lin, 2016). Therefore, perceived risk has a strong influence on online shopping behavior of consumers. Thus, perceived risk in social commerce can reduce the consumers' desire to purchases in social commerce. From in-depth interviews of perceived risk in social commerce with online shopping consumers, their perceived risk tends will higher if the consumers have little or none experience in social commerce. In the other hand, perceived risk does not effect the intention to buy if the consumers have a good earlier experience in social commerce. Thus, the authors propose this following:

Proposition 9: Perceived risk influences negatively on intention to buy

Trust

Trust is a central issue in most economic and social transactions, especially in an online context where there may be a lot of uncertainty. Trust is more important when risks are perceived to be high. In the case of e-commerce, sellers therefore must create a credibility of products and stores. Online shopping via internet has many risks, so seller must create a trust in products and stores as much as possible for motivation and guarantee to customers that they can purchase products without risk or lower risk as possible

(Chiu, Chou & Chiu, 2013; Fang, Qureshi, Ramsey, McCole, Compeau & Ibbotson, 2009). Trust can be created from communication between buyers and sellers. The channels for contact with the seller can make buyers feel the reliability of sellers. When customers have trust, it will affect their satisfaction and the purchasing will occur as a result (Dabholkar & Sheng, 2012). A research in the past in the context of E-commerce, Trust is more important when risks are perceived to be high when considering the factors of trust, perceived risk and intention to buy, the research showed that they are interrelated (Mutz, 2005). In the research of Mahmood, (2012); Kim et al, (2008) the application of the trust combined with perceived risk and intention to buy, the study focused on the trust in consumers towards online purchases through E-Commerce. The research concluded that it is considered one of the major problems in the business on E-Commerce. Including the Social commerce, the importance of anxiety is increasing among consumers on social networks. In summary, building trust is a key role in S-commerce business for reliability is a key factor to increase the intention to buy and likely to increase trust if the business is reliable. The online shopping consumers interviewed about trust in social commerce and they can offer their opinion freely. The result shows that trust will be more intensified when the customer perceived in sellers has regularly update their product information and interact with the customer. Hence, the author proposed that:

Proposition 10: Trust influences negatively on perceived risk

Proposition 11: Trust influences positively on intention to buy

Habit

Habit is an important factor that causes the discrepancy in the Theory of Planned Behavior (TPB) that explains the change or human behavior. Behavior or the change in behavior according to TPB is based on consciousness, while the consumer behaviors caused by the influence of habit happen automatically without the decision-making process (Verplanken & Aarts, 1999). Habits are routine behaviors that repeat regularly whereas intended use indicates the specific behavioral intention referring to future activities. Most habit behavior arises and proceeds efficiently, effortlessly, and unconsciously (Verplanken, Aarts, Knippenberg & Moonen, 1998 as cited in Chiu et al, 2012). According to Beatty and Smith (2012), they found that 40–60% of customers purchase from the same store through habit. They visit the websites out of habit rather than through a conscious evaluation of the perceived benefits and costs offered. Indeed, when habit is well-entrenched, people tend to ignore external information or rational strategy. Habit has been proved that it happened before purchase intention when considering the Theory of Reasoned Action and related theories. They use habit as an antecedent of behavioral intentions. The research of Lin & Wang, (2006) found that habit can directly affect behavioral intentions more than attitude and social norms do. Furthermore, a literature review of moderator relating to habit in context on e-commerce (Chiu et al, 2012; Khalifa & Liu, 2007; Liao, Palvia & Lin, 2006) found that the intention to buy depends on the experience and the development of habit in online shopping which satisfaction cannot affect consumers who do not have the habit in online shopping. Trust and intention to buy are related to habit. That is, if consumers have a good experience or trust in online shopping in the past, their habit to purchase online is more intense.

Intention to Buy

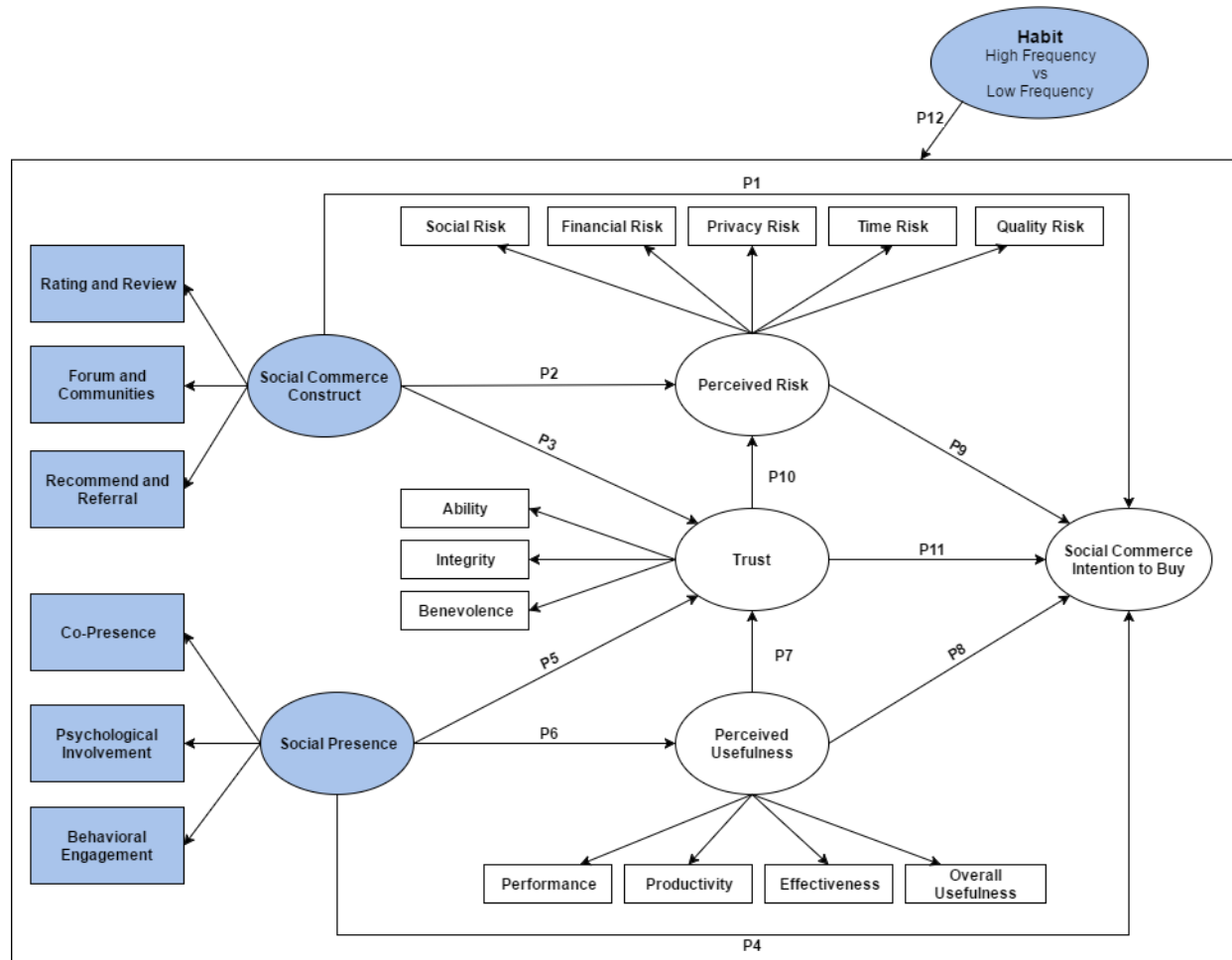
The intention to buy means that consumers are willing to buy or decide to purchase via social commerce (Gefen, 2000; Wang et al., 2010 as cited in Kim & Zhang, 2014). Intention to buy is a construct of technology acceptance model (TAM), one of the most successful theories in predicting an individual's intention to use a system (Pavlou, 2003). Intention to buy in the present study is defined as a customer's intention to engage in online buying in social networking sites. TAM is a core theory in past e-commerce research (Martins, Oliveira & Popovič, 2014; Park, Roman, Lee & Chung, 2009)

For the context of social commerce, intention to buy is a measurement to predict consumer behavior. These commercial advantages can lead the business to increase sales and encouraging customer's loyalty. (Hajli, 2015)

THE PROPOSED MODEL

This study uses Trust-based consumer decision-making model as the initial model for creating conceptual framework, focusing on post-purchase evaluation. It accords with target group, the experienced users of various online purchases through social network, who could answer the questions about trust, perceived risk and perceived usefulness. The authors have added two variables: social commerce constructs and social presence, as well as one moderator which is habit as the exogenous variables to study intention to buy via social media more comprehensively and efficiently. Furthermore, this study also analyzes the customers separately based on consumer's experience in online purchasing via S-commerce. The consumers were separated into two groups; high-frequency group and low-frequency group. From all propositions aforementioned, we propose new model as shown in Figure 1.

Figure 1. Conceptual Framework



CONTRIBUTIONS

This study aims to review extensively and clearly in factors of S-commerce constructs, social presence, perceived risk, perceived usefulness, trust and habit that influence intention to buy in S-commerce context. The study is based on a well-known trust-based consumer decision-making model. Consumer's intention to buy in S-commerce is very important not only for researchers but also for practitioners because this factor is more important in explaining and predicting online consumer behavior. The contributions of this study are as follows:

For researchers who want to explore S-commerce in more aspect, this study provides new factors to the current model which have not been studied before. These factors can better explain customer purchase intention via social commerce. The study enriches current knowledge and future study comprehensively and deeply understand what are the factors influencing intention to buy in S-commerce. Although S-commerce is an online shopping platform similar E-commerce, yet S-commerce possesses some unique features; being a channel of interactions, consumers communicate, rate products, reviewing others' opinions, participating in forums, sharing their experiences and recommend products and services. This research provides the new conceptual framework in E-commerce, covering other new factors based on trust-based consumer decision-making model from previous study in E-commerce to conceptualize a research model. This study also has factors of S-commerce constructs and social presence that gives opportunities for the co-creation, participation, sharing information and collaboration between users. These factors help to increase trust and lead to intention to buy via social networks. This research explains the role of moderator; namely habit, as influencer in S-commerce context. This can raise awareness for firms whose customers have habit variety (high-frequency versus low-frequency buyers) that they may have different behaviors; furthermore, these behaviors can differently affect intention to buy in S-commerce.

For practitioners, the proposed framework will help managers to understand what drives the intention to buy in S-commerce and focus on those to support the future expansion of the business model of E-commerce. It is also helpful for new joiners of E-commerce in aiming to use social networking as a channel to sell products. They can apply the results to implement appropriate business strategies. The study helps entrepreneurs to focus on certain factors that can increase consumers' intention to buy, at the same time increasing their chances to be successful. Entrepreneurs should emphasize the consumer habit which discerns how the consumer purchases behavior via social network. If the entrepreneurs deeply understand the behavior of the consumers, this enables new opportunities attract targets, present suitably their products and be advised properly with how to deal with their customers. For both managers and researchers, the authors believe the proposed conceptual framework can build a basis for assessment framework to new and existing distribution channel; such as S-commerce. Consequently, S-commerce will be a better online distribution channel for consumer and likelihood of success for S-commerce business. Finally, the firms that apply the proposed model to their business can achieve higher consumers' intention to buy when they use S-Commerce, which will lead to firms' competitive advantage over their rivals.

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**THE APPLICABILITY OF EARLY BUDDHIST TEACHINGS IN
21ST CENTURY CORPORATE BUSINESS WORLD**

by

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ABSTRACT

My review paper explores the applicability of early Buddhist ethics to the modern-day corporate leadership ethics. It begins by looking at a connection between Buddhism and the business world. Teachings on how to conduct ethical business from the canonical text of the *dasarājadhamma* in the Pali Canon are investigated and testified, if it is eligible to project them towards a modern Buddhist management view. Finally, the ten Buddhist leadership traits—Buddhist leadership guidelines regarding leaders' personal responsibilities are proposed. Through the analysis of the canonical text of the *dasarājadhamma* in the Pali Canon's teachings on how to conduct ethical business in a Buddhist sense, my paper shows the strong connections between Buddhism, leadership and the business world. My paper contributes to the building of fundamental business ethics and a personal leadership guideline. Since Buddhist teachings are primarily concerned with individual human consciousness and its transformation, ethical guidelines for leaders from the Buddhist point of view is a worthwhile endeavor.

KEY WORDS: *Theravāda* Pali Canon, early Buddhism, leadership ethics, leadership guidelines, corporate business world

INTRODUCTION

Recently, there has been an appearance of new guidelines, which point towards a more ethical responsible behaviour within the corporate business world. These include: corporate governance in regard to transparent and honest financial reporting, corporate social responsibility (CSR), and social entrepreneurship. All such theories have been developed in the western world, out of a secular motivation to define 'good' business behaviour, and it is to be noted that nearly all avoid addressing the importance of the leader's individual responsibility, and so do not touch on the troubled matters of individual leadership ethics. Michael E. Porter (2011), a professor in competitive strategy, criticized in the *Harvard Business Review* popular concepts such as CSR for missing shared ethical values. The needs of society are immense and continue to grow, while customers, workers and a new generation of young people require new business processes. The purpose of entrepreneurship needs to be redefined in order to create a common value that is not just oriented towards profit. Hence, an ethical individual shared value should supersede corporate responsibility; it is integral to a company's profitability and competitive position. It leverages the unique human leadership resources and expertise of the company to create economic value by creating social value (Porter & Kramer, 2011).

In management, the East has learnt and adopted knowledge and knowhow from the West often blindly without questioning its applicability or compatibility to its social roots, which is partially formed by religion. As Murray Hunter (2013) states “[t]oday there is an intense vacuum of original management thinkers in the ASEAN region.” In his article about *ASEAN's western management infatuation* Hunter's (2013) reason for this vacuum goes back that there “... has been little debate about the fit between ‘western’ management thinking and the make-up and behaviour of local corporations [and] entrepreneurs [This] ... preference for foreign expertise is based on the belief that something imported is better, *an old colonial hangover*. However, the cost of this hangover is holding back indigenous intellectual development”.

Buddhist academia has little done on developing their philosophies as management paradigms, leaving Buddhism and management field untapped areas of research. This paper attempts to bridge the literature gaps in management and Buddhist studies by looking for business ethics that are attesting their appropriation in Buddhist cultures. It looks back to indigenous Buddhist texts and explores what in this regard the *Theravāda* Pali Canon has to say. Hereby, it will focus on one of the many root-problems in the business world: the lacking of fundamental business ethics and personal leadership responsibility. In proceeding so, the teaching on how to conduct ethical business in a Buddhist sense in the canonical text of the *dasarājadhamma* in the Pali Canon is examined and testified its appropriation, if it is eligible to project it towards a modern Buddhist management view. Finally, the ten Buddhist leadership traits, that is, the ten Buddhist leadership guidelines regarding leaders' personal responsibilities are proposed.

Review of Secondary Literatures and Previous Findings

Hafner's (1927) early work points out that the postulation of humanitarian ethics can be found in the first place in *mettābhāvana*, the endless love to all human beings, and therefore is a given implicitness for the Buddhist follower, encompassing Buddhist businessmen. Harvey (2004) offers a more systematic approach to Buddhist ethics. He first looks at the shared foundations of Buddhist ethics and at key Buddhist values of all traditions. He then applies Buddhist ethics on several modern issues like the environment, society, and economics. “Economic ethics covers a wide range of issues: types of work or business practices, the approach to work in general and entrepreneurship in particular, the use to which income is put, attitudes to wealth, the distribution of wealth, critiques of politico-economic systems such as capitalism and Communism, and the offering of alternatives to these both in theory and practice. In a Buddhist context, it also entails a consideration of such issues in relation to lay citizens, governments, and the *Saṅgha*.” (p. 187).

Regarding the question: How do we classify Buddhist ethics in terms of the categories evolved in the study of ethics in the West, Whitehill (2000) has observed that contemporary Buddhism increasingly seeks to make itself understood in modern terms and to respond to contemporary conditions. Buddhist ethics find their legitimation by demonstrating that Buddhist morality is a virtue-orientated, character-based, community-focused ethics, and has much in common with the Western ‘ethics of virtue’. And Keown et al. (2000) conclude with some optimism “... about the prospects for Buddhism in the modern world, and believe that Buddhism can make a useful contribution to contemporary moral issues. At the same time, they also point out the many pitfalls and problems that face those who seek today to tap the spring of Buddhist moral wisdom for guidance.” (p. 16). In this re-

gard, de Silva (1998) reminds: “Though ethics would naturally be concerned with the search for general principles common to cultures, it is very crucial that ethicists do not turn a blind eye to the tremendous richness of the meanings of nature in different cultures and religions.” (p. 181). However, Keown et al. (2000) states: “The Buddha was critical of those of his contemporaries who denied [as many do today] that there can be an objective foundation for moral judgments. He taught the existence of an eternal moral law [known as ‘*Dhamma*’], and believed that through reason, analysis, reflection, and meditation one could come to know the requirements of this law in any given set of circumstances. His philosophical position can thus be described as ‘moral realism’.” (p. 3).

In other words, he proposes a more engaged Buddhism is required to address the corporate problems. If the Sangha does not help to find appropriate answers to respond to these new worldly problems, there is the danger of becoming irrelevant. The further Buddhists distance themselves from the real problems the world faces, the more likely it becomes that Buddhism lose its useful contribution to individual lives in an increasingly secular world. Moreover, in engaging with contemporary issues rather than withdrawing from them there is much to be gained in a deeper understanding of Buddhism itself. If Buddhism wants to get engaged in modern issues like the responsibility of corporations towards their natural and social environment, one has to approach the literature in a truly trans-temporal and transcultural light. Hence, Keown et al. (2000) warns: “... if Buddhism does not rise to the challenge of the modern world it will atrophy and die.” (p. 2).

In regard to applied Buddhist business ethics Schumacher's (1999) concept “Small is beautiful” definitely can be seen as a foundation stone in the social reform movements, which demand corporations to act in a more humane and ecologically sensible manner. His call for social entrepreneurship is today even more relevant than it was already 33 years ago. It is definitely a very critical book on the Western model of capitalism, written with a Buddhist background, based on his own experiences and observations. Based on Schumacher's work Puntasen (2008) offers the best academically developed Buddhist economics model. He approaches his concept of Buddhist economics by starting to understand human beings through a Buddhist way. He applies the Buddhist concepts of the *Kālāma Sutta*; *dukkha* (suffering), *anicca* (impermanence) and *anattā* (not-self); *moha* (delusion), *lobha* (greed) and *dosa* (anger); *paññā* (wisdom) as the most important tool; and *paṭiccasamuppāda* (dependent origination); and compares them with Western concepts (pp. 24ff.). He then continues to analyses a Buddhist production theory in contrast to Western production theories (pp. 50ff.) and links it with the Buddhist theory of consumption, where the concepts of self-interest, desire and greed are the influencing factors (pp. 70ff.). He finally expands the model of Buddhist economics and illustrates their applications to other economic subjects via principles such as self-reliance, carefulness, *ahiṃsā* (non-violence), right livelihood, not burdening one's self or others, refraining from *kilesa* (defilement) and greed, and finally, through honesty, moral shame and moral fear (pp. 92ff.). Puntasen was also self-admittedly inspired by P. A. Payutto (1994; 2002), a leading monk-scholar in Thailand, who holds that consumption should be seen only as a mean to an end, which is the development of human potential. In his writings about Buddhist economics he distinguishes between skillful versus unskillful economic behavior.

Batchelor (2002) points out that in the Pāli Canon the Buddha shows how business activities can be conducted in accord with the *Dhamma*. A Buddhist householder should be energetic, industrious, diligent, skillful, proficient, and prudent, protects his earnings, keeps

good company, and lives within his means. Wealth brings four kinds of happiness: economic security, having enough to spend generously on oneself and others, freedom from debts, and a blameless life. One quarter should be used for consumption, one quarter saved for an emergency, and a half used for one's business. This is seen as right livelihood.

Badiner (2002) offer alternatives to the present economic model and examine the consumerist behavior of the individual. Their suggested alternatives and solutions are based on the Buddhist concept of mindfulness. As well as Bubna-Litic (2000), who sees a parallel in Buddhism between the Buddha's rejection of a life of comfort and luxury and the increasing dissatisfaction of many people with today's business ethos which only values status, wealth, and material success. Similar argues Grün (2008), he alarms that our society of the 21st century, so it is claimed, is a society of declining values. Whereby, values cannot deteriorate; but we as humans can lose our relationship to the values.

Historically, according to Schopen (1997; 2004; 2009), Thapar (2002), and Tan (2003) there has always existed a connection between Buddhism and business. Not only Buddhism has spread along the trading route of the Silk Road and thence became very popular among merchants and landowners. Monks often owned considerable amounts of property, either for their disposal or for setting up land contracts. There were even occurrences of money-minting in monasteries in early India. But Buddhism was particularly popular among merchants because of its strong democratic nature. The Buddha described a capable merchant who knows the value of his goods and prices; to buy where the price is low and to sell where the price is high, as in A, III, ii, 20 (*Āṅguttara-nikāya*, Hardy, 1897). Hence, there was always a strong coexistence between Buddhism and business.

The Connection between Buddhism and the Business World

Gregory Schopen (2009) illustrated in his lecture *The Buddha as a Businessman* that Buddhism was deeply entangled with money and business transactions in early India, such as the purchase of monasteries, money-lending, or securing credits. The Sangha (the Buddhist community of monks, nuns, and novices) acted as an economic guild or like an enterprise comparable with a modern bank (Schopen, 2009). The *Vinaya* regulated how to deal with financial issues, like giving loans to poor people was flagged as risky. Schopen (2009) commented that for him this does not leave the impression as the Sangha as a social institution, rather more as a rational enterprise, where money was used to serve its means of business—a more detailed and comprehensive study of this matter can be found in Piya Tan's *Money and Monastics* (2003). Schopen (2009) concluded his lecture that early Buddhism is depicted in murals, artefacts, and texts as heavily engaged in economic and legal matters.

Moreover, several teachings in *suttas* offer advice concerning business matters and merchants' lives. Table 1 gives an overview, where teachings in the *Sutta-piṭaka* refer to business matters.

Table 1.

Examples of Suttas and Their Corresponding Business Matters

<i>Dīgha-nikāya</i>	
(D I 127) <i>Kūṭadanta Sutta</i>	The welfare state based on economic stimulation and social responsibility.
(D III 58) <i>Cakkavattisīhanāda Sutta</i>	A leader's Code of Ethics
(D III 180) <i>Siṅgālovāda Sutta</i>	A layperson's Code of Ethics with regard to the treatment of one's employees.
<i>Majjhima-nikāya</i>	
(M I 91) <i>Cūḷadukkhakkhandha Sutta</i> and (M III 45) <i>Sevitabbāsevitabba Sutta</i>	About the occupation as an archer.
(M II 184) <i>Dhānañjāni Sutta</i>	Value of work: About a minister who intrigued and suppressed the people to become rich.
(M III 202) <i>Cūḷakammavibhanga Sutta</i>	About pursuing a high position at work.
<i>Saṃyutta-nikāya</i>	
(S I 73,6) <i>Kosalasaṃyutta: Appaka Sutta</i>	The pitfalls of wealth and luxury.
(S I 89,9) <i>Kosalasaṃyutta: Aputtaka Sutta</i> (1) and (S I 91,10) <i>Aputtaka Sutta</i> (2)	Advices for rich householders without heirs on the proper management of wealth. The <i>suttas</i> admonish stinginess toward others and oneself. Rather give generously and without regret, or one may suffer the same sad consequences as the wealthy householder as in S I 89,9.
(S IV 306,2) <i>Gāmaṇisaṃyutta: Puṭo Sutta</i>	About the work as actor or comedian.
(S IV 308,3) <i>Gāmaṇisaṃyutta: Yodhājīvo Sutta</i>	About the work as mercenary.
(S IV 310,4) <i>Gāmaṇisaṃyutta: Hatthi Sutta</i> (similar as to S IV 308,3)	About the work as elephant warrior.
(S IV 310,5) <i>Gāmaṇisaṃyutta: Assa Sutta</i> (similar as to S IV 308,3)	About the work as cavalry warrior
(S IV 330,12) <i>Gāmaṇisaṃyutta: Rāsiyo Sutta</i>	A comprehensive overview how to manage possessions and enjoyment.
(S V 348,6) <i>Sotāpattisaṃyutta: Thapattayo Sutta</i>	About the hardship of chamberlains' work.
<i>Aṅguttara-nikāya</i>	
(A II 65,61) <i>Pattakamma Sutta</i>	Having a balanced householder's budget, savings for catastrophes, and payments for taxes.
(A II 69,62) <i>Ānaṇya Sutta</i>	Four kinds of bliss that can be properly attained by a householder: The bliss of having, the bliss of making use of wealth, the bliss of debtlessness, the bliss of blamelessness.
(A II 202,197) <i>Mallikā Sutta</i>	About pursuing a high position at work.
(A III 208,177) <i>Vaṇijjā Sutta</i>	A lay follower should not engage in five types of business: Business in weapons, business in human beings, business in meat, business in intoxicants, and business in poison.

Table 1. (Cont.)

<i>Dīgha-nikāya</i>	
(A IV 6,7) <i>Ugga Sutta</i>	About true wealth and the drawback of material wealth.
(A IV 25,27) <i>Saññā Sutta</i>	Seven attributes of a householder's successor downfall.
(A IV 281,54) <i>Byagghapajja Sutta</i>	Instructs rich householders how to preserve and increase their prosperity and how to avoid loss of wealth.
(A V 83,46) <i>Sakka Sutta</i>	Money can't buy you happiness, but practicing Dhamma can.
(A V 328,12) <i>Mahānāma Sutta</i>	Instructs the householder <i>Mahānāma</i> on the importance of developing the six recollections, even while one is busy at work – it is about pursuing happiness through success in work.
<i>Khuddaka-nikāya: Suttanipāta</i>	
(Sn 18,6) <i>Parābhava Sutta</i>	While the <i>Mahāmaṅgala Sutta</i> (Sn 46.4) deals with the way of life conducive to progress and happiness, the <i>Parābhava Sutta</i> supplements it by pointing out the causes of downfall.
(Sn 46,4) <i>Mahāmaṅgala Sutta</i> (this Sutta appears in the <i>Suttanipāta</i> and at (Khp 2,5) in the <i>Khuddakapāṭha</i>).	A concise but comprehensive summary of Buddhist ethics, both individually and socially.

Notes. The abbreviations of each *Sutta-piṭaka* are as follow: A II (*Āṅguttara-nikāya*, Morris, 1888), A III & IV & V (*Āṅguttara-nikāya*, Hardy, 1897 & 1899 & 1900), D I (*Dīgha-nikāya*, Rhys Davids & Carpenter, 1890), D III (*Dīgha-nikāya*, Carpenter, 1911), Khp (*Khuddakapāṭha*, Smith, 1915), M I (*Majjhima-nikāya*, Trenckner), M II & M III (*Majjhima-nikāya*, Chalmers, 1896 & 1899), S I & IV & V (*Saṃyutta-nikāya*, Léon Feer, 1884 & 1890 & 1898), Sn (*Suttanipāta*, Andersen & Smith, 1913).

Also in some *Jātakas*, the Buddha was in his previous lives a ruler and adviser of rulers, therefore, one could deduce from these narratives that Buddhist teachings touch on matters, which concern business. Examples are No. 95 the *Mahāsudassanajātaka* (Ja I 391-393, Fausbøll, 1877), No. 539 the *Mahājanakajātaka* (Ja VI 30-68, Fausbøll, 1896), and No. 541 the *Nimijātaka* (Ja VI 95-129, Fausbøll, 1896).

Also, the link between a flourishing Buddhism and ethical discipline, extending beyond the domain of renunciation and inspiring the new urban classes, suggests that Buddhism would appeal especially to merchants and craftsmen in a fashion not entirely dissimilar from Max Weber's notion of a "protestant work ethic". On the other hand, the brahminical order and its institution of castes, was opposed to the full development of an urban society. And therefore united the interests of princes and merchants in Buddhism (Weber, 1998, pp. 34-38).

Richard Gombrich (2006a) argues that early Buddhism was particularly attractive for merchants because mercantile wealth was not ascribed but achieved, and so “... it appealed largely to new men who did not fit well into the four-*varṇa* system of brahmin ideology” (p. 79). Moreover “... since Buddhism was attached neither to community nor to locality, neither to shrine nor to hearth, but resided in the hearts of its adherents, it was readily transportable. It suited people who moved around, whether changing residence from village to town or travelling on business. Hence it spread along trade routes.” (Gombrich, 2006a, p. 79).

The canonical texts, supported by such evidence as the accounts of the Chinese pilgrims and archaeological evidence from central Asia, illustrate that there was a strong connection between Buddhism, leadership and the business world, from the period of the Buddha to the Buddhist presence along the Silk Road and beyond; especially their mutual development was actually always intertwined (Gombrich, 2006a; 2006b; 2009). Hence, makes it sense to look deeper into to what extend business leaders can derive from the Buddhist teachings.

Personal Ethical Leadership Responsibilities: The *dasarājadhamma*

To be able to fulfill ethical responsibilities, one has to train personal responsibility and to develop certain characteristics first to be authentic in one’s behavior, to be credible, and to be able to act as a role model. As Rājavaramuni (1990) argues that: “Individuals as members of society are responsible both for their individual perfection and for the good of society through individual development and well-being and through helpful social relationships. People should first strive to be economically, intellectually, and morally dependable in order to be good members of society.” (p. 39). To achieve this, many among the following character traits in the *dasarājadhamma* may be observed.

In the *Jātakas* the *dasarājadhamma* is describing, or enumerating, the ten duties of a ruler, which can be found in two *Jātakas*: in the *Nandiyamigajātaka* (Ja III 274, 73, Fausbøll, 1883) and *Mahāhaṃsajātaka* (Ja V 378, 176, Fausbøll, 1891).

dānaṃ sīlaṃ pariccāgaṃ ajjavaṃ maddavaṃ tapaṃ

akkodhaṃ avihimsaṃ ca khantiṃ ca avirodhanaṃ.

Interpretation of the Pali text in detail (see also Ariyaratne, 1999; Rahula, 1959):

Almsgiving (*dāna*)

The leader should not have graving and attachment to wealth and property, rather more he should be generous and should donate it for the welfare of the people.

Virtuousness (*sīla*)

The leader must be of high ethical character and must at least observe the five precepts.

Self-Effacing (*pariccāga*)

He must be prepared to give up all personal comfort, name, fame, and even his life in the interest of the people. Another form of interpretation could be that *pariccāga* is read as “charity”. This would then be similar to the first *rājadharmma*, namely *dana*. One could solve this dilemma by interpreting the first *rājadharmma* as strictly giving donations to religious people, and the third *rājadharmma* is giving away for the social good of society.

Integrity (*ajjava*)

He must be of straight and upright character, must be beyond reproach in the execution of his duties, must be sincere in his intentions, and must not deceive the public.

Gentleness (*maddava*)

He must possess kindness and a genial temperament.

Self-Disciplined (*tapā*)

He must have self-control, lead a simple life, and should not indulge in a life of luxury—especially “religious austerity”, “self-chastisement”, and “ascetic practice” according to the Pali Text Society’s Pali-English Dictionary (1966) and Monier-Williams’ Sanskrit-English Dictionary (1899).

Conciliation (*akkodha*)

He should be good-tempered; free from hatred, ill-will, and enmity (*kodha* means “anger”; therefore *a-kkodha* means “free from anger”, i.e., “meekness” or “conciliation”).

Non-Violence (*avihiṃsa*)

Not only that the leader should not harm anybody, he should promote to avoid everything else which involves violence and destruction of life (*vihiṃsa* means “cruelty”, “injury” or “hurting”; therefore *a-vihiṃsa* means “absence of cruelty”, i.e., “mercifulness”, “humanity”, “friendliness”, or “love”).

Patience (*khantī*)

He must have forbearance, tolerance, and understanding. He must be able to bear hardship, difficulties and insults without losing his temper.

Non-Confrontation (*avirodha*)

He should not oppose the will of the people, should not obstruct any measures that are conducive to the welfare of the people, rather he should lead in harmony with his people (*virodha* means “obstruction”, “hindrance”, “opposition”, or “enmity”; therefore *a-virodha* means “absence of obstruction”, i.e., “gentleness”).

The English translations of both *Jātakas* differ, despite the fact that the word order is exactly the same in both Pali *Jātaka* texts. The interested reader can find the differing in Table 2 with the possible translations listed by The Pali Text Society’s Pali-English Dictionary (PED).

Because of the translation problems in the English versions, I summarize in short my translation as follows: The leader should be a giver of alms, virtuous, self-effacing, integer, gentle, self-disciplined, good-tempered, non-violent, patient, and non-confrontational.

Table 2.

Differing Translations of the dasarājadhamma in the Jātakas Ja III 274, 73 (Fausbøll, 1883) and Ja V 378, 176 (Fausbøll, 1891)

<i>rajadhamma</i> No.	Pali version (in both Jātaka the same wording and same word order)	Engl. translation of Ja III 274, 73 in Cowell 1897, p. 174; trans.: R. A. Neil	Engl translation of Ja V 378, 176 in Cowell 1905, p. 200; trans.: H. T. Francis (the word order differs, despite the same Pali word order)	PED
1	<i>dāna</i>	alms	almsgiving	giving, dealing out, gift; almsgiving, liberality, munificence; esp. a charitable gift to a bhikkhu or to the community of bhikkhus, the Sangha
2	<i>sīla</i>	morals	justice	moral practice, good character, Buddhist ethics, code of morality
3	<i>pariccāga</i>	charity	penitence	giving up, abandonment, sacrifice, renunciation
4	<i>ajjava</i>	justice	meek spirit	straight, upright
5	<i>maddava</i>	penitence	temper mild	gentleness, softness, suavity
6	<i>tapa</i>	peace	peace	mental devotion, self-control, abstinence, practice of morality; or penance, esp. religious austerity, self-chastisement, and ascetic practice – but this was condemned by the Buddha D I 161 (Rhys Davids & Carpenter, 1890), S I 103 (Léon Feer, 1884), S IV 330 (Léon Feer, 1890), Ja IV 306 (Fausbøll, 1887)
7	<i>akkodha</i>	mildness	mercy	freedom from anger, meekness, conciliation
8	<i>avihiṃsa</i>	mercy	patience	absence of cruelty, mercy, humanity, friendliness, love
9	<i>khantī</i>	meekness	charity	patience, forbearance, forgiveness
10	<i>avirodha</i>	patience	with morals undefiled	absence of obstruction, gentleness

The Buddhist Standpoint on Personality Traits of Leaders Nowadays

According to my interpretation of the *dasarājadhamma* as well as the possible translations illustrated in table *Differing translations of the dasarājadhamma in the Jātakas Ja III 274, 73* (Fausbøll, 1883) and *Ja V 378, 176* (Fausbøll, 1891) I will now map these characteristics to modern-day leadership literature and research.

Practicing *dāna* as a leader in terms of donating for the welfare of the people then *dāna* has the characteristic of leaders to initiate and support social welfare systems.

Taking *sīla* as “good character”, as the PED translates, including following a code of ethics, then this refers to be honest, dependable in the sense of being trustworthy and reliable, and fair-minded.

If we take *pariccāga*’s meanings as “giving up”, for example of an ego, and “renunciation” as being humble, then we find an equivalent in a bold statement of Dave Balter (2011), the founder of one of the leading word-of-mouth marketing companies worldwide. He advises Chief Executive Officers (CEOs) in his article *The Humility Imperative: CEOs, Keep Your Arrogance in Check*: “Dig a hole, throw your ego into it, and pour concrete on top. Find humility instead”. Taking humility as the opposite of pride, vanity, and self-importance, then *pariccāga* stands for humility and humbleness by giving up and renouncing pride, vanity, self-importance, and hubris.

Reading *ajjava* as being straight and upright, the parallels in leadership are to be straightforward and courageous. Overall, I would summarize *ajjava* under the personality trait of integrity, which encompasses also *sīla* in terms being honest, trustworthy, reliable, and fair-minded.

By *maddava* standing for gentleness and kindness this would point into the direction of the caring and supportive characteristics of leaders; i.e., to show care and concern for one’s subordinates wellbeing.

To fulfill *tapa* as “mental devotion, self-control and practice of morality”, one has to have the characteristics of being loyal, determined, self-controlled, and mature.

The word *akkodha* in the meaning of conciliation refers parallel, similarly as *pariccāga* and as *tapa*, to being self-controlled and giving up one’s ego. And as Balter (2011) states that humility is the only way to resolve problems, conflicts, and contradictions, which comes with the leadership process.

The mercifulness and humanity, which is in *avihiṃsa*, does require broad-mindedness in the sense of tolerance.

Again, another word overlaps with others, here the word *khantī* overlaps with the interpretations of *tapa* in terms of being self-controlled, and somehow also with *avihiṃsa* as being broad-minded in the sense of tolerance.

To be able to lead in harmony and not against the will with one's subordinates, namely *avirodha*, the leader has to be cooperative and loyal. This includes also the caring aspect of *maddava*. In addition, this also points towards *pariccāga*; viz., to have humility and humbleness.

The sometimes overlapping interpretations of the Pali words while mapping them to nowadays desired personality traits, I do not see as a contradiction. Rather the opposite, I see it as evidence how important especially four characteristics of leaders are; namely, humility and humbleness, self-control and tolerance, care and concern, and integrity.

In the following Buddhist management guidelines about personal responsibility of leaders based on the *dasarājadhamma* and the above discussion are proposed.

Buddhist Leadership Guidelines Regarding Leaders' Personal Responsibilities: The Ten Buddhist Leadership Traits

In regard of personal responsibility from a Buddhist point of view a leader should fulfill the following personality traits:

1. Generosity in terms of social welfare

The leader should not be attached to his wealth and property, rather more he should support social initiatives and should feel responsible for the welfare of his subordinates. This personality trait is based on *dāna*.

2. Following an inner code of ethics

The leader should have a stable good character; i.e., following an inner code of ethics, including honesty, trustworthiness, reliability, and fair-mindedness. This personality trait is based on *sīla*.

3. Humility and humbleness

The leader should not be egocentric, be dominated by pride, vanity, self-importance, and hubris, rather more he should be guided by humility and humbleness. This personality trait is based on *pariccāga*.

4. Integrity

The leader should be of straight and upright character, must be beyond reproach in the execution of his duties, if he is guided by integrity. He should be sincere in his intentions and should not deceive his subordinates. This personality trait is based on *ajjava*.

5. Care and concern

The leader should show care and concern about the wellbeing of his subordinates. He or she should be supportive in fulfilling their tasks; applying a balanced mix between directiveness, task structure and the subordinate's job satisfaction. This personality trait is based on *maddava*.

6. Self-control and discipline

The leader should be mature in his character, should have self-control in his temper, and should not indulge in a life of luxury, rather more he should be determined in the execution of his duty as a role model. This personality trait is based on *tapa*.

7. Conciliation

The leader should be able to conciliate between disagreeing parties, should possess the capability of moderation in disputes and during hostile times. And he himself does not inflict problems, conflicts, and contradictions on others. This personality trait is based on *akkodha*.

8. Tolerance

The leader should be broad-minded and should not willingly harm the subordinates. He or she promotes tolerance, friendliness and humanity within the organization. This personality trait is based on *avihiṃsa*.

9. Patience and forbearance

He or she shows patience for the subordinates' failures and weaknesses; instead of punishments he is supportive with training and coaching. He himself should be able to bear with hardship, difficulties and insults without losing temper. This personality trait is based on *khantī*.

10. Non-confrontation and free of enmity

The leader should not obstruct any measures that are conducive to the welfare of the subordinates and the society. He should lead in harmony with the people and the environment as much as possible. Whenever it is possible, he should be cooperative rather than confrontational. This personality trait is based on *avirodha*.

CONCLUSION

Through the analysis of the canonical text of the *dasarājadhamma* in the Pali Canon's teaching on how to conduct ethical business in a Buddhist sense, this paper showed the strong connections between Buddhism, leadership and the business world. This paper has contributed to building fundamental business ethics and personal leadership guidelines. Since Buddhist teachings are primarily concerned with individual human consciousness and its transformation, ethical guidelines for leaders from the Buddhist point of view is a worthwhile endeavour.

The researcher is well aware of the historical problem of extracting Buddhist ideas from the time and place of their origin. The challenge was to find responses to new problems that are consistent with the spirit of Buddhist values and in congruity with the scriptural tradition (Keown et al., 2000, p. 1). This task was especially challenging because the earliest Buddhist canonical literature is over 2000 years old. The problems we face today are the results of modern society and its economic and technological developments, which could have scarcely been imagined during the Buddha's lifetime (Schmithausen, 1997, 2002). However, *dasarājadhamma* should not be read literally rather be seen as a leadership-ideal, which idealistically should be strived for, knowing at the same time that it can never be completely fulfilled. It serves as an unattainable vision, based on the most humanistic ideals, and therefore nevertheless is still absolutely justifiable, providing inspiring ethical guidelines for leadership and management in present-day corporate business world.

Further proof of my findings is supported by the *Cakkavattisīhanāda Sutta*, the *Kūṭadanta Sutta* and the *cakkavattivatta*, illustrating why it is important to fulfil social responsibili-

ties as a leader. And finally, the *rājasāṅgahavatthu*, *khattiyabala*, and *Siṅgālovāda Sutta*, exemplifying the professional responsibilities especially in respect to financial management in accordance with the *Ādiya Sutta* and *Pattakamma Sutta* together with the bliss of debtlessness in the *Anaṇa Sutta*. All these suttas demonstrate that ethical Buddhist leadership exists in a very practical way by not only sending one's employees regularly to meditation centres, and by giving donations to the Sangha. The suttas give a far more clearer and wider understanding in which way a Buddhist business can be ethically lead and managed in the 21st century C.E.

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**PROBLEMS AND SUGGESTIONS FOR
LEARNER-CENTRED APPROACHES IN THAILAND:
VIEWS FROM FOREIGN LANGUAGE TEACHERS IN A THAI UNIVERSITY**

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ABSTRACT

The purpose of this paper is to investigate foreign language teachers' views on problems and solutions for learner-centred approaches in a Thai university. Semi-structured face-to-face interviews with four native speakers and four Thai teachers teaching foreign languages were conducted. The research questions include (1) what are teachers' views on Thai students' approaches to study? and (2) What are problems and suggestions for learner-centred approaches in the Thai context? The interview data were analysed by transcribing and coding according to content. Findings revealed that (1) unfamiliarity with learner-centred approaches and weak ability in logical and critical thinking were major problems, (2) participants felt that (a) power relationships between teacher and students, (b) being afraid of making mistakes, and (c) an inequality in the educational environment were possible causes of problems, and (3) as for suggestions for solving these problems, gaining appropriate understanding of the approaches for instructors and introducing the approaches to students at younger ages were proposed.

KEY WORDS: Learner-centred approaches, foreign language, Thai university

INTRODUCTION

Learner-centred approaches have become a central issue for foreign language education (Tudor, 1996). It is also true in foreign language education in Thailand, however teachers and learners here seem to struggle with learner-centredness. "Thai students are so passive" and "They don't seem to be enthusiastic." Such comments can quite often be heard in conversations during lunch breaks among foreign language instructors. These negative opinions seem to represent the current teacher opinions of learner-centredness in foreign language education in Thailand.

Moreover, the above comments made among teachers seem to show that there is a gap between the reality of learners in the classroom and the ideals of foreign language education in Thailand. However, it remains unclear what is behind these comments because teachers are busy with their daily teaching load and lack sufficient time to discuss and investigate this further. From my initial review of the literature, to find a study on teachers' voices and opinions of learner-centred approaches in foreign language education in Thailand is difficult. Therefore, this paper is a timely exploration of the gap between the reality that teachers have to deal with and the ideals of foreign language education.

This research is to investigate the perceived characteristics of Thai learners and typical problems these learners have. This study will focus on foreign language teachers' frank and candid opinions that are gathered in interviews. The interviews will focus on their opinions of learner-centred approaches in relation to their teaching experience, rather than talking about abstract and idealistic images of students on foreign language courses.

LITERATURE REVIEW

Learner-Centred Approaches to Teaching

Nowadays a learner-centred mode of teaching is considered in opposition to teacher-centred approaches/teacher-led approaches. The aims are to gain self-directiveness and empowerment for learners. Learner-centred modes of teaching are not a single school of thought and reflect a variety of different perspectives (Tudor 1996, p.32-33).

Thai Culture and Learner-Centred Approaches

Little information on the perception of learner-centred approaches among foreign language instructors in Thailand can be found in the literature. The literature available tends to focus on the relationship between Thai education and learner-centred approaches.

Phungphol (2005) states that Thai education has been reforming and moving from teacher-centred approaches to learner-centred ones. However, Prpic and Kanjanapanyakorn (2004) mention that the culture of universities in Thailand is influenced by Thai values and norms. According to Prpic and Kanjanapanyakorn and Phungphol, the culture of Thai universities is teacher-centred and it does not seem that a great awareness of developments for learner-centred approaches exist.

Concerning problem with learner-centred approaches in Thailand, the first important aspect is "power distance" (Hofstede 1991,1997, Prpic and Kanjanapanyakorn, 2004). This distance can be found in the relationship between a senior and a junior, for example, between a teacher and students as power distance. The superior-inferior relationship is clearly recognised by "age, birth, title, rank, status, position or achievement" (Hofstede 1991, Prpic and Kanjanapanyakorn 2004) in Thai society. As a result, students are quiet in front of an instructor and it is rarely seen that students freely express their opinions or disagreement with a teacher's opinion. Hence, no questions from learners are welcome in the process of learning. Another example is that they feel that they bother an instructor if questions are raised in the class. This means that students rarely challenge a teacher's position.

Another drawback of "power distance" in education is that Thai learners tend to wait for a teacher's answer and are reluctant to explore on their own. Students likely perceive that a good instructor has all the answers and learners believe that knowledge is transmitted through a teachers' instruction to them (Prpic and Kanjanapanyakorn, 2004). This leads to students waiting to be told by an instructor rather than actively seeking their own answers. Consequently, it is hard for learners to realise the importance and efficacy of being responsible for their own study.

The second important cultural element in relation to learner-centredness in Thailand is losing “face” by errors and mistakes in the classroom. According to Komin (1991, p.135), “face” is identical to “ego” and is very sensitive. In Thailand there is a cultural emphasis on “face”. It is therefore crucial to save “face” of other people and himself/herself to keep harmony with others. An example relating to “face” is that students are afraid of making mistakes (Phoewhawm 2017, p.59), because they tend to consider that they might lose face by their mistakes in the classroom. Therefore, students in Thailand are afraid of being hurt by their own errors and mistakes. Consequently, “saving face” greatly seems to affect Thai learners in the classroom psychologically.

Four key research questions are raised below how foreign language teachers view on the problems of learner-centredness at a university in Thailand:

1. What have these language teachers done in foreign language courses as for learner-centredness?
2. How do these language teachers feel about learners in Thailand?
3. What can be the obstacles when these language teachers bring learner-centredness into language programmes?
4. How do these language teachers currently perceive learner-centredness and what do they suggest for future?

METHODOLOGY

Methodological Approach

The aim of this study is to reveal troubles and suggestions that foreign language instructors have perceived with regard to student-centred approaches, and to do so through instructors’ voices, rather than through numerical data. Hence, interviews were chosen as a research method.

In this study, semi-structured interviews were conducted, because this is open-ended and this format allows an interviewee to have sufficient time to explore elaborately and express his/her opinion on a topic (Dornyei 2007, p. 136). That is why, the semi-structured interview was chosen in this study.

Data Collection Procedures

The participants (See Table A) were eight foreign language instructors who are currently teaching at a Thai university. They are teaching English, Chinese and French as foreign languages. Foreign language native teachers are from Participant 1 (P1) to Participant 4 (P4) and their nationalities are Australian, French and British. Thai teachers who teach foreign languages are Participant 5 (P5) to Participant 8 (P8).

Data in this study were collected one to one in face-to-face interviews in English. Interviews lasted from 50 minutes to 1 hour per participant. Semi-structured interviews were conducted and each participant was asked the same questions. The wording of questions was chosen carefully and these questions were written in advance. During the interviews, the participants had opportunities to talk freely about learner-centredness in foreign language education. The interviews were recorded with a recorder for transcription. In addi-

tion, the perception of learner-centredness questionnaire was prepared in order to support the interview data. After the interview, the participants filled in the questionnaire related to the research questions.

Data Analysis

Data analysis method used was determined by the research questions in this study. The interview data was analysed in a qualitative way. At the first step, the recording of interviews was transcribed and summarised in the form of tables according to research questions. At the second step, the researcher found similarities and categorised from participants' data according to each table. Finally, putting a label on each group was carried out.

RESULTS

Impressions of Thai Learners

The author will present the teachers' perceptions of Thai students. Table B in Appendix presents the impressions of Thai learners among foreign language teachers. The results indicate that the instructors have common impressions of Thai students.

Six out of the eight instructors in this study especially commented on the passivity of Thai learners as a weakness. P1 expressed that Thai learners are willing to listen and to take part in the class without questions. That is why they are quiet. P2 also stated that Thai students come to the class and enjoy the teacher's entertainment show on TV. These comments have important implications for learner-centredness in Thailand. In order to deal with this, it is essential for Thai learners to open their mouth for using a language (P3). In addition, another participant mentioned that this passiveness can not only be found in class but also outside.

“The campus is located in an isolated place, so they are not active with regards to learning from outside the class. They only learn from what they have heard and experienced in the class. It is different from students in Bangkok” (p.5)

P6 also expressed a similar opinion, that Thai learners are not active outside the university. They did not seek for chances to use the language that they learnt in the classroom. Another instructor viewed Thai students' passiveness from a motivational perspective. There is a link between the motivation to learn and learners' passiveness. According to P7, students simply do not like studying English due to the previous learning experience at secondary school. In addition, at university they have to study English as a compulsory subject, even though they are not interested in learning it. As a result, such experiences result in demotivation and this causes a vicious cycle as it impacts on language learning.

Another negative image of learners in Thailand is that they are seen to be immature. P4 observed that they don't know how to think by themselves and how to be motivated by themselves. Moreover, they don't work individually for language learning. P6 also has a same view towards the students.

“Nowadays, our learners are very passive, immature and they also expect their instructors to tell them everything. They did not do their assignments with all their effort, because they think that their instructors will tell them all the answers in the end. And when they get what they are waiting for, they do not pay attention to it, since it comes to their hands easily. Finally, they will learn nothing from the class, and this is the major problem of our country’s education.” (P6)

From this finding, these troubles tremendously affect their learning style. As a result, these problems encourage them to wait for answers from an instructor, rather than exploring and searching for answers on their own. Furthermore, this makes it difficult for them to take responsibility for their study.

Problems with Thai Learners

Interviews reveal obstacles that the instructors in this study face in their daily teaching experiences. There are not distinctive differences between foreign native teachers and Thai ones as for problems related to learner-centred mode of teaching. From the interviews with the instructors, one major problem is that Thai students are not accustomed to learner-centred approaches.

Unfamiliarity with Learner-Centred Approaches

The participants in this research commented that learners in Thailand are not familiar with learner-centred approaches. Therefore, unfamiliarity with these approaches can cause them to be confused and make them worry about their learning. This issue is likely to be an obstacle in foreign language courses in Thailand when drawing on a learner-centred paradigm into a course. According to P1, insufficient student-centred skills is a problem. P1 mentioned that Learner-centred means students’ thinking and learning is learner-centred. Students are basically able to develop their knowledge and skills via asking questions. However, Thai learners try to learn without questions and they tend to participate in the class without asking questions. P2 also pointed out that Thai learners are not experienced in learner-centred learning.

“[Learner-centred approaches are] Not welcome. They have no experience it. They don’t get used to it. In Poland students got used to it. But students in Thailand have experienced teacher-centred approaches and passed their university entrance exam. That’s why they don’t feel that they need to change.” (p.2)

Weak Ability of Critical and Logical Thinking

The second problem is that the ability of critical and logical thinking is weak. p.6 explained that the lack of learner-centred experience in learning has tremendously negative impact on the skills for critical and logical thinking, because the opportunities to think about something critically and express their thoughts openly are rarely given in teacher-centred approaches. In other words, they naturally tend to listen and wait for answers from an instructor in teacher-centred mode of teaching. Gradually, they feel comfortable with teacher-led style of classroom. (p.6) explained this problem.

“At present, Thai students are seriously lack of this kind of ability, so they do not know how to process the information. They acquire many pieces of a picture but do not know how to put them together, thereby they cannot see the whole picture, so they feel that they know nothing, in spite of knowing so many things.” (p.6)

These problems indicate that Thai learners have problems with gaining self-directiveness and empowerment.

DISCUSSION

Diagram A shows the possible connections among Thai educational culture, problems and the impression of Thai learners. In this chapter, the relationship between problems and possible causes of problems will be explored. Furthermore, possible solutions to these problems will also be examined.

Possible Causes of Problems

Considering the relationship between the culture of Thai education and learner-centred approaches, it seems to be difficult for them to be in harmony with each other. The first possible reason is the effect of “power distance” (Hofstede 1991, 1997, Prpic and Kanjanapanyakom 2004). This social-distance emphasises the gap between a teacher and a student. Therefore, according to Prpic and Kanjanapanyakom, young (students) are quiet in the front of their senior (a teacher) and therefore, the younger is reluctant to ask questions, express their opinions or disagree with a teacher. If this power distance exists, it is highly likely to have an impact on classroom behaviour. In addition, this power relation perhaps causes the learning environment in Thailand to be very teacher-centred (Prpic & Kanjanapanyakom 2004, Phungphol 2005). Moreover, this power balance might lead teaching staff to be not always keen on developing their practice, for instance, learner-centred learning and teaching methodologies (Prpic and Kanjanapanyakom). Hence, learner-centred approaches have perhaps struggled to take root in Thailand.

“Why students are passive? Students respect seniors and don’t argue. This is part of Thai culture. This leads to a problem with critical and logical thinking. This element does not encourage students to think. For example, learners can’t differentiate what cause and effect.” (p.6)

The second possible reason is that Thai learners are afraid of losing face (Komin 1991, Prpic and Kanjanapanyakom 2004, Phoewhawm 2017) by making an error or a mistake in the classroom. Hence, they are reluctant to take risks and rise to challenges in class in front of peers and teachers. P6 explained the reason why Thai learners are passive in learning. “Another obstacle is ‘face’ and this means that students are afraid of making mistake in the front of people.” (p.6)

The third possible reason is an inequality in the educational environment. P7 and P8 point out that this is a social problem in Thailand, such as great difference between the rich and the poor, as seen between Bangkok and rural areas which also have influences on the

educational environment. For instance, if a learner was born and grow up in Bangkok, he/she has sufficient chances to receive high-quality education which focuses on learner self-directiveness and empowerment, On the contrary, if he/she was born in a rural area, it tends to be difficult to do so. Consequently, this inequality in the educational environment probably has influence on students' learning before reaching university.

As the result of these three reasons from the interview data, Thai students are hesitant in becoming active in a foreign language classroom. Consequently, the first and second reasons are in agreement with the study of Prpic and Kanjanapanyakom (2004) and both indicate that cultural values and norms greatly have influence on learning and teaching in Thailand.

Suggestions for Obstacles in Thai Context

Taking these Thai situation into consideration, we now turn to concrete suggestions for dealing with obstacles to learner-centredness in Thai context. Diagram B in Appendix indicates that suggestions for learner-centred approaches in Thailand. The first suggestion is that foreign language instructors at all levels need appropriate understanding of learner-centred approaches in foreign language programmes (p1, p2, p4, p5, p6, p7, p8). P6 mentioned the importance of understanding of the approaches. Appropriate understanding of the approaches may involve training and raising teachers' awareness of the approaches, activities and techniques available. In addition, initial teacher training programmes should also pay greater attention to these 'different' approaches, therefore new instructors will know how to deal with particular issues in a contextually appropriate way. Joining such activities, teachers will be able to gain a deep insight about the importance of learners' independence and their empowerment in their learning.

Learner-centred approaches ask an instructor to consider a great number of things (Tudor 1996, p. 248-249). This means that the quality of teachers is crucial. P1 commented that the quality of teachers is important for learner-centredness in foreign language education. For Thailand, the AEC (ASEAN Economic Communities) might offer opportunities to re-evaluate and re-assess the quality of education, because there will be more exchange and transfer and greater access for instructors in Thailand to different educational approaches and ideas in teaching from other regional settings.

The second suggestion is that learner-centred approaches should be introduced at younger ages, due to the fact that this is a time-consuming process to acculturate and gain learner-centred skills (P1, P6, P7). Therefore, learner-centred approaches should start as early as possible. If so, students will already be accustomed to the approaches by the time they reach university and will not struggle with the more participative mode of classroom interaction used. However, introducing the training for acquiring learner-centred skills should be taken slowly and little by little.

CONCLUSIONS AND FUTURE STUDY

This research revealed the connection between Thai culture and obstacles of learner-centred approaches in the context of Thailand. In addition, concrete suggestions were also examined to deal with the issues raised in this study. However, this research was limited to only eight participants, hence, it is not possible to generalise its findings widely. The full

extent of students' perceptions about learner-centred approaches in language programmes in Thailand has not yet occurred. Therefore, further research with a larger sample size investigating the perception of learner-centredness from the students' side is also necessary.

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APPENDIX

Table A.

Background Information of Participants

	Gender	Age	Current teaching role	Teaching hours per week	Language	What to teach
P1	Male	50's	Lecturer	15 hours	English	English for Careers
P2	Male	50's	Lecturer Course coordinator	18 hours	English	Drama, Literature Listening & Speaking 2
P3	Male	40's	Lecturer	12 hours	English	Listening & Speaking
P4	Male	40's	Lecturer	23 hours	French	Oral expression, Pronunciation, Grammar
P5	Female	50's	Assistant professor	10 hours	Chinese	Chinese for the Beginners Intermediate Chinese
P6	Female	30's	Section head	9 hours	Chinese	Foundation Chinese Chinese reading Chinese for Tourism Business
P7	Female	30's	Lecturer	30 hours	English	English Grammar Foundation English
P8	Male	40's	Lecturer	15 hours	English	English Structure Language Research

Table B.

The Impressions of Thai Learners

P1	Thai learners are willing to listen and to take part in the class without questions. Therefore, they are quiet.
P2	They come to the class and enjoy the teacher's entertainment show on TV.
P3	Some students are quite passive, so a teacher forces them to open their mouth with using language practically. Teachers expect students more active.
P4	They are immature. They don't know how to think by themselves and how to be motivated by themselves. They don't work individually. They are polite on `face level`.
	The campus is located in an isolated place, so they are not active with regards to learning from outside the class. They only learn from what they have heard and experienced in the class. It is different from students in Bangkok.
P6	They are not active outside the university. They don't seek for chances to use the language that they learnt.
P7	In terms of studying English, English major students like English and study better than math, chemistry major students. They focus on more using English and the contents of the class are more difficult. With regards to non-English major students, they like to study or not, it depends on a group. Most students from the faculty of education, agriculture and sports don't like studying language, but they have to study Foundation English.
P8	If students get good supports, they are good and quite positive. Mass media said that Thai students has low ability, but it is important to see them from multidimensional perspectives.

Diagram A. Relationship among Thai Culture, Problems and Impression of Thai Learners as For Learner-Centred Approaches from the Interviews

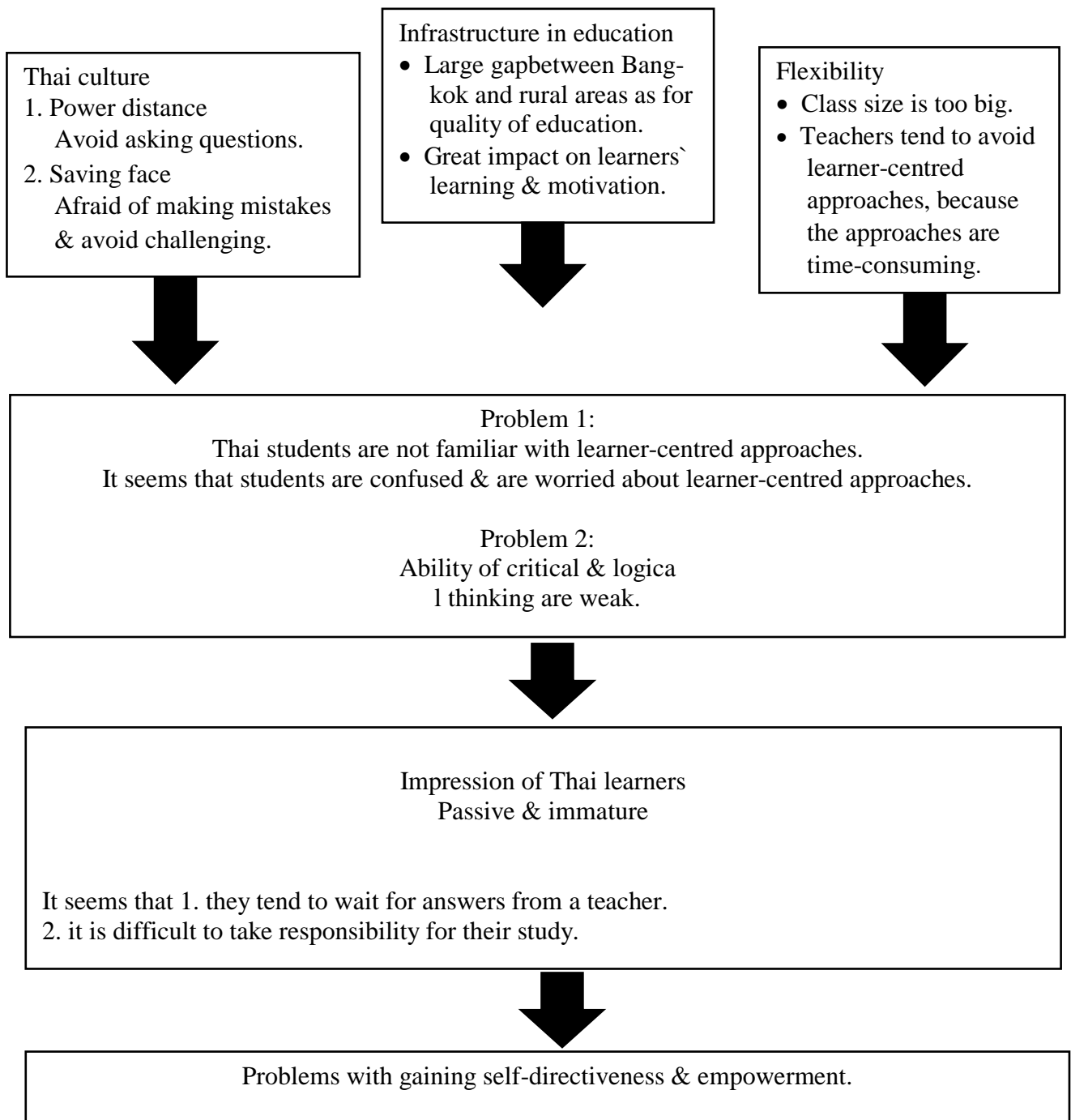
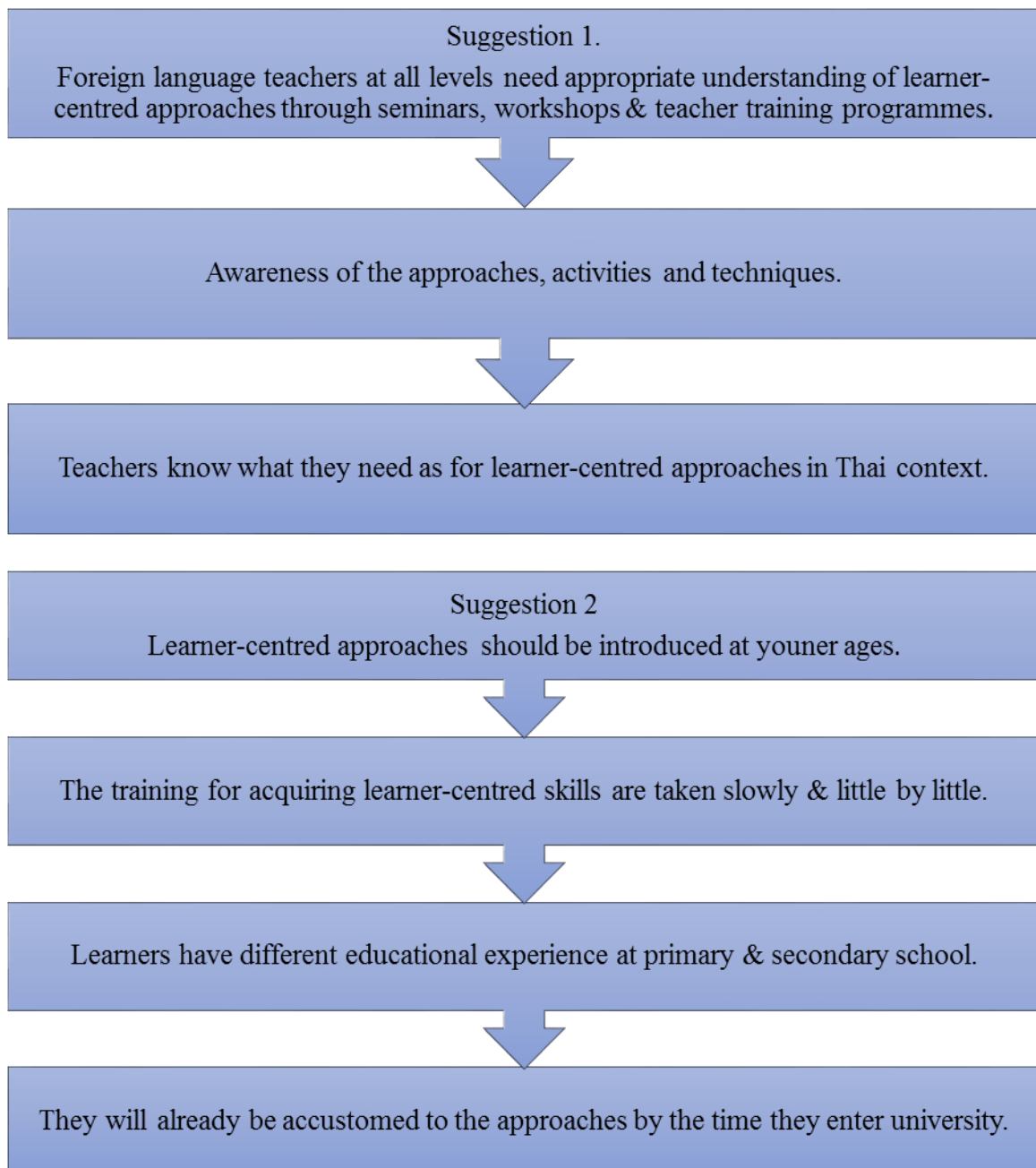


Diagram B. Suggestions for Learner-Centred Approaches in Thailand



RESEARCH AGENDA ON HEALTH SOCIAL IMPACTS OF ASEAN

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ABSTRACT

This review paper puts forward questions stemming from the further development of ASEAN as a regional entity within the context of research pertaining to health and the social sciences and is a discussion paper. This is a review of the literature of health issues focused on both issues as well as populations who are presently and who will potentially be impacted in terms of health. Among these populations are migrants (skilled and unskilled) and satellite populations such as family members of the elderly. Stress-related illnesses due to rapid urbanization become more of a reality and access to cyber technology and health information becomes more of a social issue. However, other populations may remain hidden giving rise to questions regarding the following: (i) their health situations and health needs, (ii) the demographic changes that signal the need for more trained health professionals, and (iii) the need for more pertinent research by academics. The literature reviewed suggests that (i) there are more hidden populations than there are presently stud-

ied, (ii) demographic changes in the region need to be more closely monitored, and (iii) academics could possibly band together from across disciplines to contribute health and social research that is pertinent to the changes brought about by ASEAN. The signal then is for an academic monitoring mechanism and body that focuses its research agenda on the impact on health brought on by ASEAN, which is expandable to include health issues that are a social reality; and that focuses on changes on the health situations of the region.

KEY WORDS: ASEAN, health, social science, research, critique

INTRODUCTION

Questions that stemmed from the further development of ASEAN as a regional entity within the context of research pertaining to health and the social sciences were put forward in this review paper. The paper focused on health issues as well as populations who were impacted by this development at the time of the literature review and potentially in the future.

Based on the literature reviewed, it can be expected that the further development of ASEAN would be an impetus for the migration of skilled and unskilled migrants. Additionally, the development of ASEAN had brought to light the question of the legal status of the migration of labor. However, research on the health impacts of migration such as health resources, health access, and long-term health implications of migration and migrant populations was found to be missing from the literature. The literature reviewed also showed that research on the health of women and children was narrow in scope. The literature focused mainly on issues pertaining to the sexual health of women and children but was not expansive in scope. For example, the literature did not cover the health implications that the development of ASEAN would bring to women and children such as the long-term impacts of indentured labor, availability of health resources for women and children, and the impact on health in the region's women and children caused by social determinants of health (e.g. poverty, employment and ethnicity). Also, the literature did not focus much on the health implications for women and children trafficked both for manual labor and sexual exploitation (ASEAN, 2011; ASEAN, 2015).

The literature reviewed also showed that health issues studied in ASEAN focused only on patients. Focus was not given to satellite populations that were potentially impacted by changes and development in the ASEAN region. An example of these satellite populations was the elderly population. While the growth rate of the elderly population had been studied from the economic perspective, little to no pertinent research had been done on this population from the social scientific perspective. Issues affecting the elderly and their caregivers, such as health and psychosocial needs, had yet to be studied on an expansive scale.

Literature that pertained to stress related to accelerated growth was also reviewed, and showed an existing gap in the information regarding how development-related stress affected populations in the ASEAN region. Finally, alongside the issue of the development of ASEAN were the issues of cyber technology and the connection of cyber technology to health-related issues. The literature was scant on studies that were directly connected to accessibility of health information, cyber technology and health and the health impacts of limited/no access to cyber technology.

LITERATURE REVIEW

Migration

Due to growing economies and the incessant need for development, developed nations in the region (e.g. Singapore, Thailand and Brunei Darul Salam) had opened up their borders to receive documented migrants that fulfilled the economic and development needs of their respective nations (Strang & Ager, 2010). Nations in the region where economies were weaker (e.g. Myanmar, Cambodia and Lao PDR) sent out their nationals to strengthen the national economic and fiscal situations (Lutz, 2016). This symbiotic relationship, on the surface, seemed fairly *quid pro quo*. But closer scrutiny of the literature showed that social and cultural issues that affected health were rarely studied.

According to the literature, various types of migration existed. For example, voluntary migration dealt with individuals who willingly crossed national borders in order to seek employment while involuntary migration dealt specifically with individuals who were forced across borders. There were also differences in terms of involuntary migration. United Nations Human Rights (2014) pointed out that there was a difference between smuggling and trafficking. Smuggling was defined as the process where intermediaries moved persons from one point to another and where the smuggled persons consented to the action; the intermediary earned a profit from this act and the smuggled person was able to earn a better living and better lifestyle in the new destination. Trafficking on the other hand occurred without the consent of the trafficked person; the trafficker reaped a profit while the trafficked person was coerced into sexual or physical indentured labor (Mohamed, Sulaiman, Othman, Yang & Harun, 2011; Sakdiyakorn & Vichitrananda, 2009). In contemporary parlance, the victims of smuggling or trafficking were known as modern slaves. The estimated prevalence of modern slavery in ASEAN nations was reported as Cambodia (1.468%), Myanmar (0.956%), Brunei (0.805%), Thailand (0.626%), Malaysia (0.425%), Philippines (0.398%), Laos (0.295%), Indonesia (0.286%), Singapore (0.165%) and Vietnam (0.152%) (The Minderoo Foundation, 2016).

As individuals crossed borders the issue changed into one of control of the receiving government of wages, number of received migrants expected and the economics of the nation. However, issues that pertained to the social and cultural situation of migrants remained relevant and therefore deeper consideration was needed on this issue. Such issues included integration and the believed homogeneity of the migrating workforce (United Nations, 2015; World Migration Report, 2015) that complicated social and cultural issues. This indicated that much had yet to be studied regarding these issues as these issues included health implications.

Women and Children

While many issues surrounded women and children, research efforts in the ASEAN region focused on sexual crimes, human rights of children and issues that surrounded gender. Due to economic expansion, the promise of better financial and standards of living led to mass migration of workers in the region (Mohamed, Sulaiman, Othman, Yang & Harun, 2011). While focus had been given to undocumented migrant workers, less so was done for victims of trafficking and smuggling for financial gain.

For women and children, especially female children, the smuggling or coercion that was assisted by corruption (Sakdiyakorn & Vichitrananda, 2009) often resulted in torturous treatment such as the renegeing of payment, deprivation of food and torture. If women were smuggled for the purpose of becoming domestic workers, they were possibly treated inhumanely in countries such as Malaysia, Singapore and Hong Kong; if women were smuggled or trafficked for sexual purposes, such as sex work by husbands in North Asian nations or as sex workers or survival sex workers in Thailand their survival depended on their traffickers or spouses (The Global Slavery Index, 2016). While all nations in the ASEAN region possessed legal sanctions against the smuggling and trafficking of men, women and children (United Nations Human Rights, 2014; United Nations Office on Drugs and Crime, 2009), the trafficking and smuggling continued. Gender studies go deeply into the impact that such crimes have had on women and children, but were arguably not cognizant of the social and cultural implications of such crimes. This strongly suggested a need for research in this area from a social and cultural perspective.

Satellite Populations: Caring for the Elderly in an Aging Region

The reality of an aging population within the region was found in the literature reviewed. Singapore and Thailand led the way, while Malaysia would achieve the “aged” nation status in the year 2030 when the proportion of persons aged 60 years and over reaches the 15% mark. But, as a whole, the ASEAN region was projected to register a 435% increase in its older persons population between 2000 and 2050 – a rise from 39.5 million to 175.8 million in less than half a century. Rapid modernization, urbanization and industrialization among ASEAN member countries had resulted in the rise of new generations as increased life expectancy and lowered fertility converged and accelerated the demographic transition.

Personal caregivers of the elderly in the region were usually immediate family members. If available, foreign labor from within the region was hired for this task. However, this option depended on the availability of said foreign labor. The literature showed that with the continued rise of an elderly population, there was a need for the study of the infrastructure, private and personal training for individuals to care for the elderly and the continued support for the caregivers themselves (ICSW, 2010; Devasahayam, 2003; Gray, Hahn, Thapsuwan & Thongcharoenchupong, 2016; Mehta, 2005). The gap that existed in the literature was that this issue was rarely studied from a social and cultural standpoint.

Urbanization and Stress

Due to the continued urbanization and development in the region, local and international migration continued as a result of the promise of individual financial prosperity. The end result of this continued quest for economic and professional success was the modern phenomena of stress. The literature suggested that stress in urban areas could be related to mental or physical stress and are commonly related to the conditions of employment as well as social determinants of health (Kaewangnuchit & Sawangdee, 2016). Such stress led to health impacts as well as negative impacts on the environment where in order to support frantic development, less-than-suitable housing, medical facilities and other infrastructure were constructed and health-endangering conditions (both environmentally and developmentally) were created (ASEAN Studies Center, 2009; Yuen & Kong, 2009).

While many western studies had been conducted on stress due to development, the ASEAN region certainly would have a different perspective due to regional, local, social and cultural parameters. Again, a signal for research from an impact of such development from an ASEAN social and cultural impact was found in the literature.

Cyber Technology and ASEAN

A disparity existed between developed, developing and underdeveloped nations in ASEAN where internet access, speed and usage were concerned (Internet Society and TRPC, 2015). While policies, both national and regional, were in place (ASEAN, 2011) there was a concern for the social and cultural outcome of the use, overuse and underuse of the internet in the region (A.T. Kearney, 2015; Pippopinyo, 2011) that stemmed from geographic location (urban versus rural), purpose of internet use (education versus entertainment), the purpose of social media, cybercrime and negative outcomes for economies and personal individuals and the increased personal threat to material and personal security (Lee, 2016; Lucchetti, 2016; Yao, 2015).

QUESTIONS RAISED BY THE LITERATURE

The initial questions/critiques raised in the literature reviewed included:

- The literature suggested the necessity of integration of impact assessment into policy as part of strategic management in engaging stakeholders.
- The issue of management of health issues that surrounded marginalized populations.
- Indications that there was a need for a balance between economics and the happiness of the people in the region.
- The signaled need for respecting all people of ASEAN in the move towards development and continued modernization.
- Indications of the need for technologies to be made accessible to all, especially in terms of health issues and access to health information.
- The need for the development of a sustainable environment that supported all people of ASEAN and did not create health issues or negative health impacts.

SUMMATION OF NEEDS

The gaps identified by the literature reviewed showed that firstly, only specific populations were identified but these populations were visible and were clearly identifiable. This raised the question of hidden populations, hidden health issues, hidden cause and effects of health issues, what other populations had yet to be identified and how did the expansion of ASEAN impact these health issues and hidden populations?

The second gap identified in the literature reviewed was that the demographic makeup of society had changed disproportionately. This disproportionate change signaled that health

needs of society, health specialties of medical professionals, social support and care needed within communities facing health challenges and health concerns within a society were also constantly changing. The question this raised was how were these changes tracked and how were the health needs met to ensure that appropriate resources were in place to effectively meet the changes that ASEAN brought with it?

The third gap identified in the literature was that research on health from the perspective of social sciences had followed a myopic train of academic debate that researched the obvious, without questioning more deeply the consequences and outcomes of health decisions. The reviewed literature showed that the research of health was taken from a social science perspective in insulated geographic and/or population pockets without extrapolation for links to other geographic areas and/or population pockets that could be similarly or identically affected. This extrapolation was also not extended to include how effective changes that increased the quality of health of all people in ASEAN could be shared within the region. Additionally, this extrapolation did not include the development of networks within the region to address health-related issues that affected the population of ASEAN and how these networks would work in unison toward the alleviating of health issues from a social sciences perspective.

These gaps pointed to a direction for future research in terms of health within the context of the social sciences. First, researchers needed to review the way that health is viewed based on the impact of the changes brought about by ASEAN and the way that health was studied from the perspective of the health social sciences. Whether from a sociological, anthropological, psychological or health policy perspective, research into health could take a new view of health due to the changes happening in ASEAN, specifically, research could be based on cross-border health issues, emerging populations and the health issues that affect them and emerging health issues that are due to changes in demographics, population mobility and social determinants of health in each and every nation.

Second, research endeavors needed to widen its breadth of its understanding of health issues and not only focus on health in terms of disease; this widening required expanding the academic debate to include health issues that were social realities that emerged due to regionalization. Third, health systems, health access and health outcomes needed to be monitored and tracked to identify both efficiencies and inefficiencies longitudinally. Such monitoring and tracking could only be done effectively if a network of academics were formed within the ASEAN region and worked symbiotically to produce research that was relevant to identifying health issues, identified the efficiencies and inefficiencies that surrounded the health issue, and offered recommendations that would potentially make positive changes to the health of the people of ASEAN.

THE PROPOSED RESEARCH AGENDA

Based on the above, the proposed research agenda would like to put forward the following guiding principles in steering future research in the region:

- Reassessment of socio-cultural impacts that facilitated better policy creation and integration.
- Recognition of socio-cultural events that shaped mindsets of the people.

- Awareness of changing demographics.
- Accessibility to all populations to regional prosperity.
- Monitoring of the level of development and the impact of development on society.
- Monitoring the changes in the environment that would directly impact society.

The principles above would pave a path for a new research agenda that puts at its forefront the concerns of the people in the ASEAN region, and shifted the focus away from a purely economic or developmental paradigm. The first core principle of this proposed research agenda is the people of ASEAN, and the concerns for their care, continued well-being and participation as active and contributing members in the developing prosperity of ASEAN. The second core principle of the proposed research agenda is that research development must work with, and not for, the populations studied. This would create a sense of belonging, investment, ownership and responsibility between the researchers and the populations studied. The third core principle of the proposed research agenda is that outcomes lead to more than data; in that the purpose of the research is for creating sustainable educational programs, relationship building between relevant stakeholders, outreach and further development of and for the people of ASEAN.

LOOKING TO THE FUTURE

A research agenda that takes into consideration the needs of all segments of society is much needed as ASEAN moves towards the end of the second decade of the 21st century. Academics that are committed to research that benefits people, and not merely meeting the rigors of academia, could assist in such an endeavor by creating support for social equity and wellbeing in their research efforts, creating meaningful research through professional and accountable public engagement and pushing the boundaries of present research efforts. To perform research activities, while laudable, is not enough to prepare ASEAN for the future. Rather, research that focuses on its people would contribute greatly to the development of the region.

As previously mentioned, this proposed research agenda is not completed, but it is a start. It is with hope that the authors of this proposal present this manuscript for the deep consideration of all academics in the region and that academia in ASEAN move towards not merely answering socio-cultural oriented research question but also contributing through research, publication and action towards the betterment of the people of the region.

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THE 21ST CENTURY ENTREPRENEURIAL SKILLS OF UNDERGRADUATE STUDENTS

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ABSTRACT

This study aims to examine relations between the new generation entrepreneurs and the 21st century entrepreneurial skills of undergraduate students as the conception framework. A total of samples were 354 Business Administration Program of universities in Phra Nakhon Si Ayutthaya Province Semester 1/2016 students. Questionnaires were used as data collection tool. Canonical Correlation of the new generation entrepreneurs and the 21st century entrepreneurial skills of undergraduate students are value-equal to .919, .271 and .112, respectively. The first and second functions were at the 0.01 level of significance. The third function was not related significant statistically. The important canonical weights of two functions contribute to each other by the relationship of independent variables the new generation entrepreneur and 21st century entrepreneurial skills of undergraduate students.

KEY WORDS: The 21st Century entrepreneurial skills, undergraduate students

INTRODUCTION

Thailand is entering the AEC-Asian Economic Community that making worldwide of product and service market. It is a great opportunity to develop and expand the business under continuous and rapid the current change competition. The three business groups in the early year 2016 are financial technology, healthcare and wellness and food innovation. In the adaptation of Thai entrepreneurs, they must be applied the principle of start-up 4.0 by innovation into a business. The new generation of entrepreneur is moving forward and increasing innovation of technology. (Marketing Oops, 2016) To succeed, the entrepreneur

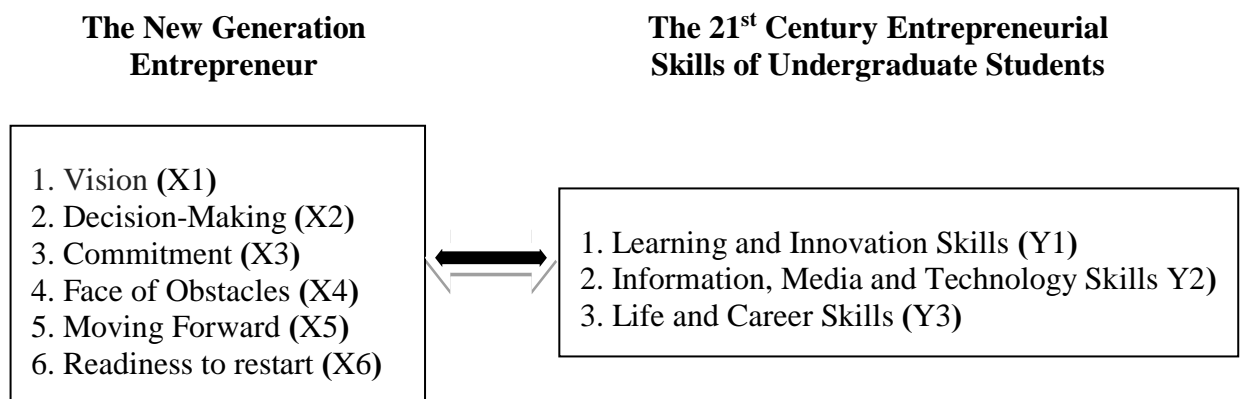
must have commitment, creation, initiatives and entrepreneurial business plan. Small and Medium Enterprise (SMEs) operations are still held to the same standards of corporate governance, employee welfare and liability as the larger companies and they often have to manage these risks with fewer resources and less time to spare on concerns other than those relating to day business. In which high rates of successful technology-based entrepreneurship contrast with low average productivity and growth in traditional SMEs Business, technical, trade, service and manufacturing industries. Having excellent framework conditions and programs for technology-based start-ups and SMEs in areas such as R&D, high-level skills generation and venture capital finance. These strengths need to be maintained. At the same time, more needs to be done to spread success to all types of SMEs. Therefore, statistical information is important and necessary for the public and private sectors used in the formulation of policies and planning, economic and industrial development, both at the national and the provincial levels on which all sectors can benefit in the plan to develop the country together. Each year about 500,000 graduates figures from the Office of The Education Council in the forecast year 2012-2016. Demand for labor is about 145,348 people. For this reason, 70.93% of graduates are jobless or unemployed. It reflects that the competitive rate of graduates to enter the labor market is quite high. Therefore, in order to provide students with an alternative preparation, professional development, skill and experience that goes into being an entrepreneur. (Social Security Office, 2016)

In today's world, the idea of being an entrepreneur is increasing. The significant factors are the freedom to work and willing to be ownership of the business. SMEs are important part in driving global business because of having liberal ideas in the presentation of new products and services to consumers. Trying to achieve success as an entrepreneurial challenge. The reasons that researchers studied the 21st century entrepreneurial skills of undergraduate students because of knowing the new entrepreneurial features and the 21st century entrepreneurial skills of undergraduate students. These can be used as a guide in planning the strategy of entrepreneurship in the future.

OBJECTIVE

To study the relationship between the new generation entrepreneurs and the 21st century entrepreneurial skills of undergraduate students.

CONCEPTUAL FRAMEWORK



HYPOTHESIS

1. The new generation entrepreneur has canonical correlations with the 21st century entrepreneurial skills of undergraduate students.
2. At least one factor of the new generation entrepreneurs affects in one another with the 21st century entrepreneurial skills of undergraduate students on each side.

METHODOLOGY

Design and Sample

The cluster random sampling used in this study consisted of 4,098. The samples were 354 Business Administration Program of universities in Phra Nakhon Si Ayutthaya Province Semester 1/2016 students were determined by R.V.Krejcie and D.W. Morgan.

Instrument

Tools of collection data are questionnaires with three parts.

Part 1: General Information of students

Part 2: Factors of the new generation entrepreneurs

Part 3: The 21st century entrepreneurial skills of undergraduate students

Data Collection

354 questionnaires were used to collect data from Business Administration Program of Universities in Phra Nakhon Si Ayutthaya Province Semester 1/2016 students. Then, the data collected were further analyzed by Canonical Correlation.

Analysis of the Data

1. Descriptive statistics analysis to determine the characteristics of distribution in each variable by using basic statistics, the percentage frequency values, average, and standard deviation values.
2. Canonical Correlation Analysis between the new features of the new generation entrepreneurs and the 21st century entrepreneurial skills of undergraduate students.

RESULTS

Result of analysis for the basic statistics set of independent variables and set of dependent variables. It found that set of independent variables were vision (X1), decision - making (X2), commitment (X3), face of obstacles (X4), moving forward (X5), readiness to restart (X6). By each side, average mean was between 4.148 to 4.266 and standard deviation was between .569 to .626. Sets of dependence variables of the 21st century entrepreneurial skills of undergraduate students were learning and innovation skills (Y1), information, media and technology skills (Y2), life and career skills (Y3). It found that by each side, average mean was between to 4.196 to 4.325 and standard deviation was between .581 to .621. Analysis results appear, as shown in table 1.

Table 1.

Basic Statistics of Independent Variables the New Generation Entrepreneurs and Dependent Variables the 21st Century Entrepreneurial Skills of Undergraduate Students

Variables	\bar{X}	SD.	Level
The New Generation Entrepreneurs	4.201	.539	High
• Vision (X1)	4.191	.569	High
• Decision-Making (X2)	4.266	.588	The highest
• Commitment (X3)	4.148	.606	High
• Face of Obstacles (X4)	4.175	.591	High
• Move forward (X5)	4.206	.607	High
• Readiness to restart (X6)	4.223	.626	The highest
The 21 st Century entrepreneurial skills of undergraduate students	4.249	.563	The highest
• Learning and Innovation Skills (Y1)	4.325	.621	The highest
• Information, Media and Technology Skills (Y2)	4.226	.581	The highest
• Life and Career Skills (Y3)	4.196	.587	High

The results of internal correlation coefficient analysis between the independent variables set and the set of dependent variables. The results canonical correlation analysis between independent variables set and dependent variable set of the new generation entrepreneurs were between .710 to .853 and positively statistically significant at the .01 level. All the values and the correlation coefficient between the internal skills of the 21st Century entrepreneurial skills of undergraduate students on each side between .799 .867 were positively statistically significant at .01 level every value. The analysis results appear, as shown in the table 2.

Table 2.

The Results Of Internal Correlation Coefficient Analysis Between The Independent Variables Set and the Set of Dependent Variables

	X1	X2	X3	X4	X5	X6	Y1	Y2	Y3
X1	1.000	.749**	.768**	.736**	.792**	.710**	.710**	.748**	.731**
X2		1.000	.777**	.718**	.765**	.752**	.669**	.713**	.691**
X3			1.000	.802**	.853**	.753**	.733**	.807**	.830**
X4				1.000	.833**	.807**	.719**	.815**	.800**
X5					1.000	.798**	.763**	.823**	.820**
X6						1.000	.765**	.835**	.792**
Y1							1.000	.799**	.842**
Y2								1.000	.867**
Y3									1.000

Notes. $p^{**} < 0.01$, $p^* < 0.05$.

To analyze the correlation values between independent variables set and dependent variables set. It found that the correlation between independent variables were vision (X1), decision-making (X2), commitment (X3), face of obstacles (X4), moving forward (X5), readiness to restart (X6) with dependent variables set the 21st century entrepreneurial skills of undergraduate students were learning and innovation skills (Y1) information, media and technology skills (Y2) and life and career skills (Y3) were equal to .919, .271 and .112, respectively. Function 1 and function 2 were statistically significant at the .01. Function 3 was no significant relationship. Consideration of Eigen Value, it found that both sets were to be the 2-axis sort by function 1 And function 2 and function 3 were .844, 0.073 and .012, respectively. Function 1 dimension was the maximum correlation. The independent variables set, the new generation entrepreneurs can be described approximately 84.4 percent, and function2 was independent variables the new generation entrepreneurs described according to dependent variables. The 21st century entrepreneurial skills of undergraduate students approximately 7.3 percent. Function 3 was not found to be statistically significant, according to a defined level. The analysis results also appear as a table 3.

Table 3.

The Results of Canonical Correlation Analysis between Independent Variables Series and Set of Dependent Variables

Function	Canonical correlation (Rc)	Eigen valuen (Rc ²)	Wilk's Lambda Λ	Chi-square χ^2	df	p
1	.919	.844	.142	678.918	18.000	.000
2	.271	.073	.915	30.847	10.000	.001
3	.112	.012	.987	4.380	4.000	.357

Analysis of weight important, Canonical Correlation Analysis between of independent variables set the new generation entrepreneurs on 6 sides with dependent variables set all 3 sides of skills of the 21st century entrepreneurial skills of undergraduate students could affect each other 2 functions.

In the first function (F1), the variables that influence the most were information, media and technology Skills (-.970) life and career skills (-.956) and learning and innovation skills (-.886) respectively. In which influence the independent variables were moving forward (-.929) readiness to restart (-.925) commitment (-.919) face of Obstacles (-.909), vision (-.841) and decision-making (-.799) respectively. Function (F2), dependent variables were learning and innovation skills (-.272) and life and career (-.244) respectively. In which influenced the independent variable were commitment (-.297) and readiness to restart (-.260) respectively. The analysis results also appear as a table 4.

Table 4.

The Important Canonical Weight of Independent Variables the New Generation Entrepreneurs Dependent Variables the 21st Century Entrepreneurial Skills of Undergraduate students. The Important Canonical Weight of Independent Variables the New Generation Entrepreneurs Dependent Variables the 21st Century Entrepreneurial Skills of Undergraduate Students

Types of variable		Variables	The important canonical weight	
			F1	F2
Independent variables set				
The new generation Entrepreneurs	Vision (X1)		-.841 ¹	-. 96
	Decision-Making (X2)		-.799 ¹	-.189
	Commitment (X3)		-.919 ¹	-.297 ¹
	Face of Obstacles (X4)		-.909 ¹	.107
	Moving forward (X5)		-.929 ¹	.012
	Readiness to restart (X6)		-.925 ¹	-.260 ¹
Dependent variables set				
the 21 st Century	Learning and Innovation Skills (Y1)		-.886 ¹	-.272 ¹
entrepreneurial skills of	Information, Media and Technology Skills (Y2)		-.970 ¹	-.093
undergraduate students	Life and Career Skills (Y3)		-.956 ¹	-.244 ¹

DISCUSSION AND CONCLUSION

The correlation between independent variables set the new generation entrepreneurs were vision, decision-making, commitment, face of obstacles, moving forward and readiness to start with independent variables set the 21st century entrepreneurial skills of undergraduate students were learning and innovation skills, information media and technology skills and life and career skills equal to .919, .271 and .112 respectively. Functions 1 and 2 were statistically significant at the .01. Functions 3 there were no significant relationships, which were statistically significant at the .01 level follow by hypotheses. The new generation entrepreneurs were vision, decision-making, commitment, face of obstacles, moving forward and readiness to start had relationship with the 21st century entrepreneurial skills of undergraduate students were learning and innovation skills, information media and technology skills and life and career skills. These reasons supported Saikajaang & Sukpetch (2014), the corporate entrepreneurship factors of small and medium tour operator the results showed that the corporate entrepreneurship had a five-dimension consisting of new business venturing, innovativeness, reorganization, proactive management, and risk management that affecting the performance effectiveness of small and medium tour operator. As well as research Atawongsa & Satyarakwit (2014) the effects of entrepreneurial orientation and enterprise characteristics on Thai small and medium enterprises' Growth. It found that the entrepreneurial orientation had a direct influence on enterprise characteristics; 2) the entrepreneurial orientation indirectly affected the growth of small and medium Thai enterprises through its influence on enterprise characteristics; and 3) enterprise characteristics had a direct influence on the growth of small and medium Thai enterprises. In addition, the results found that the most important variables of enterprise characteristics are proactive organization, marketing strategy, and innovative organization.

As indicated by the results of the survey, increased entrepreneurial orientation can positively influence enterprise characteristics, and particularly business operations, leading to significantly enhanced performance and growth. Chokpromanan & Jadesadalug (2015) found that the opinion level of entrepreneur characteristic regarding autonomy orientation, innovativeness orientation, risk taking orientation, competitive aggressiveness orientation, stability and learning orientation and achievement orientation were high and very high levels. The results of hypothesis tests were found that autonomy orientation stability and learning orientation of store entrepreneur were significantly different according to age groups. A difference in education background of entrepreneurs also showed the different entrepreneur characteristics. Competitive aggressiveness orientation and achievement orientation were a positive influence on successful business operation. This research has benefits for the entrepreneur. They have to learn more about managing their cases and others to efficiently operate and improve the response of customer need for successful of their own business.

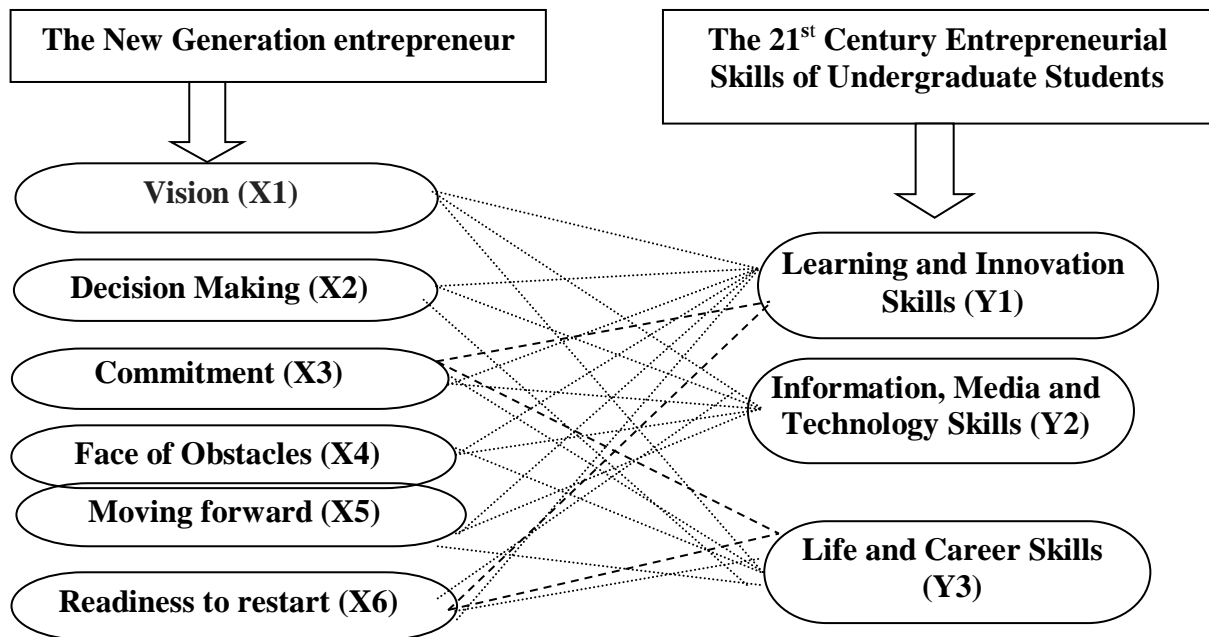
The importance weight independent variables set six sides of the new generation entrepreneurs with dependent variables set three sides of the 21st century entrepreneurial skills of undergraduate students could affect each other two functions. In the first function (F1) dependent variables, the most influence were information media and technology skills (-.970), life and career skills (-.956), and learning and innovation skills (-.886) respectively. Independent variables influence were moving forward (-.929), readiness to restart (-.925), commitment (-.919), face of obstacles (-.909), vision (-.841) and decision-

making (-.799) respectively. It showed that students with the new generation entrepreneurs were moving forward, readiness to restart, commitment, face of obstacles, vision and decision-making cause to the 21st century entrepreneurial skills of undergraduate students information media and technology skills, life and career skills and learning and innovation skills. In accordance with the work of Sutyopas & Wingwon and Wingwon (2012) found that potential of entrepreneurs and the organizational innovation direct and indirect toward for competitiveness of small and medium enterprises. Saithong & Chunsom (2014) found that Entrepreneurs have different motivation level of social action from the highest level to the lowest level were pull factor, ability factor and push factor. Entrepreneurs have different motivation level of learned needs theory from the highest level to the lowest level were need for achievement and need for power. The second function (F2), the variables most influence were and learning and innovation skills, (-.272) and life and career skills (-.244) respectively. Influence independent variable were face of obstacles (-.297) and readiness to restart (-.260) respectively. It showed that commitment and readiness to restart affected the 21st century entrepreneurial skills were learning and innovation skills and life and career skills accordance with Moungmee & Yoelao and Roamchart (2012). It found that social support and psychological traits, i.e. extraversion could predict the intention of becoming an entrepreneur of the fourth year Thammasat University students after controlling conformation to the reference group related to becoming an entrepreneur.

The results of canonical correlation analysis between independent variables the new generation entrepreneurs and dependent variables the 21st century entrepreneurial skills of undergraduate students. It could be concluded that the parameters were in the 21st century entrepreneurial skills of undergraduate students. When separated by the 21st century entrepreneurial skills of undergraduate students on each side and considered overall as follows.

- A. $Y1 = f(X1, X2, X3, X4, X5, X6)$
- B. $Y2 = f(X1, X2, X3, X4, X5, X6)$
- C. $Y3 = f(X1, X2, X3, X4, X5, X6)$

Figure 1. The Relationship between Independent Variables and Variables Was Analyzed by Canonical Correlation Analysis



Notes. Relationships from the first canonical correlation analysis.
 ----- Relationships from the second canonical correlation analysis.

SUGGESTIONS

Sustainable development of the new generation entrepreneurs and the 21st century entrepreneurial skills of undergraduate students by coordinating the business and education sectors for students to practice skills and understand the working environment. For this reason, it will be increasing of competency and decreasing of unmatched graduate. It will link the experiences, ideas and attitudes both within and between ASEAN member countries include English proficiency. Both forms of teaching that students can develop themselves.

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**THE IMPACT OF MEDIA EXPOSURE, GENDER, AND
PRE-AND-POST PARTICIPATION IN ORGAN DONATION CAMPAIGN ON
THAI STUDENTS' KNOWLEDGE AND ATTITUDE TOWARD ORGAN DONATION**

by

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ABSTRACT

This research aims to explore the impact of media exposure to “Give New Life...Become an Organ Donor” campaign on the Thai students’ knowledge and attitude toward organ donation developed during pre-and-post participation in the campaign organized by School of Communication Arts, Bangkok University in 2016. Eighty-four high school and university students were selected using purposive sampling, after they have engaged in the campaign by producing public relations plan and video clip to promote the organ donation in Thailand on the behalf of Thai Red Cross Society Organ Donation Center. The data were analyzed using Multivariate Analysis of Covariance (MANCOVA). The Multivariate results indicated that Thai students’ knowledge and attitude were significantly associated with their pre-and-post participation in the campaign and by the interaction between gender difference and pre-and-post participation but were not significantly associated with their media exposure. The Univariate results revealed that students’ gender, pre-and-post participation, and the interaction between gender and pre-and-post participation significantly influenced their attitude toward organ donation but no significant impact on their knowledge.

KEY WORDS: Organ donation campaign, media exposure, knowledge,
attitude toward organ donation, Bangkok University

INTRODUCTION

There was a critical demand for the organ donation in Thailand. The current data from the Red Cross Society Organ Donation Center reported that there were only 102 organ donors despite the fact that there were only 5,402 waiting lists for organ transplantation and only 230 organ recipients as of April 30, 2017. Nevertheless, Thailand has made tremendous achievements in organ transplantation especially heart, liver, and kidney. Revealing the current organ transplantation in Thailand, Thailand Transplantation Society (2017) reported that Thailand was the first country in ASEAN to perform heart transplantation twenty-one years ago. Currently, the cumulative number of patients who received intrathoracic organ transplantation including heart, heart-lung, and lung transplantation in the country amounted to 142 patients. In respect to liver transplantation in Thailand, the cumulative number of patients who received deceased donor liver transplantation in Thailand is 330 patients. In addition, living related liver transplantation has been given to treat 30 pediatric and adult patients with liver failure from congenital and acquired liver diseases. Significantly, kidney transplantation was the highest number of solid organ transplanta-

tion being performed in Thailand. Currently, 4,202 patients have received kidney transplantation from 23 centers within the kingdom. Fifty-five percent of these received deceased donor kidney transplantation and forty-five percent received living related or spousal kidney transplantation. At the moment, 400 kidney transplantations are being performed within the country each year.

Nowadays, there are a large number of terminal patients suffering from the malfunction of vital organs such as heart, liver, kidney, lung, etc. The best medical way-out for these patients is organ transplant, which is made possible with organs donated by the deceased themselves or by the relatives' decision to help others. This will extend the patients' life so that they can go on contributing to their family and society. New organs that can be transplanted are heart, liver, kidney, lung, pancreas, and bone, etc. (Thai Red Cross Society Organ Donation Center, 2008).

Thai Red Cross Society Organ Donation (2017) was formally established by the Thai Red Cross Society in 1993 with significant objectives, including (1) to serve as a place where prospective organ donors can be registered, while they are alive and to have their relatives arrange for the member hospitals to acquire the organ tissue upon their death, (2) to coordinate among hospitals where donor patients die, (3) to serve as a place where prospective recipients nationwide can be registered, (4) to allocate donated organ tissue in a fair and academically sound manner, (5) to examine tissue compatibility for transplants and other laboratory examinations, (6) to serve as a public relations center providing news and information about organ donations to medical practitioners and related professionals as well as the public, (7) to contact organ donation centers in neighboring countries on behalf of recipients, and (8) to represent Thailand in future organ tissue exchange programs. In addition, the primary policies of the Red Cross Society Organ Donation Center, including (1) to encourage more people to donate organs so as to meet the needs among prospective recipients, (2) to allocate organ tissue in a fair manner, and to prevent organ purchases, and (3) to make the best use of donated organ tissue (Thai Red Cross Society Organ Donation Center, 2008).

According to the qualifications of organ donors, the Thai Red Cross Society (2008) clearly states that: (1) The donor must be under 60 years of age; (2) The donor has died from cerebral death; (3) The donor is free of infectious disease and cancer; (4) The donor does not have any chronic diseases such as diabetes, heart conditions, kidney disorder, hypertension, liver disease, or alcoholism; (5) The organ to be donated must be fully functional; (6) The donor must have no diseases that can be transmitted through organ transplants e.g. hepatitis-B, AIDS; (7) Inform their family members or relatives of the donation (Thai Red Cross Society, 2008).

Thai Red Cross Society Organ Donation Center had organized several activities to reach Thai youngsters. In 2003-2004, the Center has organized "One Gift...Many Recipients: U-Talk Contest" in conjunction with Thai Life Insurance and RK Media Holding Co.,Ltd., which was a speech contest about organ donation and stem cells, wherein more than 20 high schools and universities participated in the contests. The contest aimed to promote knowledge about organ donation and to promote the awareness of youngsters about the significance of organ donation. In 2005, Thai Red Cross Society Organ Donation Center, Thai Life Insurance Co., Ltd., and RK Media Holding Co., Ltd organized "One Gift...Many Recipients: Giving for New Life," with the ultimate aim to promote

knowledge about organ donation among high school students to search for new younger generation to campaign for organ donation (Visit Thitawat, & Yuwadee Authajaruvisit, 2016).

However, very limited research were conducted in the past to examine whether participation in the organ donation campaign or a single-shot event significantly influence Thai youngsters' knowledge or attitude and whether their personal factors especially gender and participation in the organ donation contest affect their knowledge or attitude or not. Most of the past studies revealed the knowledge and attitude toward organ donation were significantly correlated after being exposed from the campaign organized by the Thai Red Cross Organ Donation in conjunction with various organizations (Visit Thitawat, & Yuwadee Authajaruvisit, 2016; National Statistical Office, 2004; Nurhayati Sa-i, 2014). Three studies examined the knowledge and attitude toward organ donation among nurses working in the medical services (Thongyapat Phongwiwat, 2013; Visit Thitawat, & Yuwadee Authajaruvisit, 2016; Suvirat Rattanamaneechot, 1993) found that nurses and doctors have knowledge about organ donation in the moderate and fairly good level and they have positive attitude toward of organ donation at high level. People in the Roi-Et province, Pattani province, and Chiang Rai province had knowledge about organ donation in moderate level and attitude on acceptance of organ donation at high level (Duangdean Sremadee, 2014; Nurhayati Sa-i, 2014; Thongyapat Phongwiwat, 2013). Few studies revealed that residents differed in their knowledge about organ donation had significantly different attitude toward organ donation (Duangdean Sremadee, 2014; Noppadol Thongman, 1988, Suwirach Rattanamaneechot, 1993). Media exposure to organ donation campaign significantly affected their organ donation decision (Noppadol Thongman, 1988).

Past studies have discovered that knowledge and attitude for organ donation are two key factors shaping an individual's decision for organ donation (Duangdean Sremadee, 2014; Anongsri Simsiri, 2011). Examining the antecedents of model for organ donation, Anongsri Simsiri (2011) has explored factors affecting organ donation program and model. Anongsri Simsiri's findings offered a constructing program to promote blood donation in Narathiwat province in order to correct knowledge and good attitude to about blood donation. Teachers, instructors, and parents are the key subjective norms who would support teenagers to be the donor. Duangdean Sremadee (2014) also suggested five activities in the encouraged model for blood donation in Roi-Et province, including (1) dialogue for blood donation, (2) blood donation networking, (3) a volunteer of caring to blood donor and voluntarily to blood donation, (4) campaigning to increase blood donation donors, and (5) dialogue after blood donation.

To increase organ donation awareness and participation among Thai youngsters, the Public Relations Department under the School of Communication Arts, Bangkok University has organized an organ donation contest with the theme "Give a Gift of New Life...Be an Organ Donor" in conjunction with Thai Red Cross Society Organ Donation Center in 2016. The contest began from February – May 2016, wherein students from high schools were invited to send one-minute-video clip to stimulate public's positive attitude of organ donation, and university students from state and private universities were also invited to send an "Organ Donation" Public Relations plan with the ultimate aim to promote organ donation rate in Thailand. This single-shot contest used teachers, instructors, and management team of the Thai Red Cross Society Organ Donation Center as a subjective norm to promote knowledge about the significance and benefits of organ donation. During the

project implementation, students will have continuous dialogue with friends and instructors about organ donation while creating video clip and public relations plan. They had a chance to gain knowledge about organ donations by attending a seminar on the topic of “Significance and Benefits of Organ Donation in Thailand” during the press conference held on February 5, 2016, and the prize announcement held on June 3, 2016. The organ donation contest lasted for 4 months for the students to do information gathering, data collection, and media production about organ donation. To measure the effectiveness of the organ donation contest, the researcher would like to examine the impact of the organ donation contest on the participants who were Thai students’ knowledge and attitude toward organ donation. Applying Wilcox and Cameron’s public relations effectiveness yardstick to measure the outcome of the campaign, the researcher aims to measure intermediate level of audience’ knowledge developed from comprehension and awareness from the perceived information and the advanced level of attitude change.

RESEARCH OBJECTIVES

1. To explore the impact of media exposure to organ donation contest with the theme, “Give a Gift of New Life...Be an Organ Donor” on Thai students’ knowledge and attitude toward organ donation as associated with pre-and-post participation in the organ donation contest.
2. To explore how variation in gender and pre-and-post participation in the organ donation contest significantly influence Thai students’ knowledge and attitude toward the organ donation.

HYPOTHESES

Hypothesis 1: Media exposure to organ donation contest with the theme “Give a Gift of New Life...Be an Organ Donor,” significantly influenced Thai students’ knowledge and attitude toward organ donation.

Hypothesis 2: A variation in gender and pre-and-post participation in the organ donation contest significantly influenced Thai students’ knowledge and attitude toward organ donation.

LITERATURE REVIEW

Definition of Public Relations Campaign and Measuring Campaign Effectiveness

Public Relations campaigns were goal-oriented communication efforts with persuasive strategies and tactics to reach the specific target of a company or a political party, such as purchasing a product/service, voting a political party or supporting a legislature, or engagement in an idea or a social change. Larson (2010) pointed out campaigns were different from a single-shot message in that they (1) should create ‘position’ in the audience’s minds for the product, candidate, or idea, (2) were intentionally designed to develop over time and involved stages for getting the audience’s attention, preparing them to act, and finally calling the audience to action, and (3) dramatized a product, a candidate, an idea, or an ideology for the audience, inviting members to participate with the campaign and its goal (s) in real or symbolic ways.

Wilcox and Cameron (2012, p.193) pointed out that public relations effectiveness yardstick can be implemented to assess the outcomes of campaign goals and strategies. Public Relations yardstick comprised of: (1) “Basic level involved measurements of targeted audience impression, and media placement; (2) Intermediate level involved measurement of audience’s retention, comprehension, awareness, and reception; and (3) Advanced level involved measurement of target audience’s opinion change, attitude change, and behavior change. The most widely used methods for evaluating campaign effectiveness were measurement of production, message exposure, audience awareness, audience attitudes, and audience action.”

Wilcox and Cameron (2012, p. 202) underscored the significance of public relations campaign evaluation in determining the effectiveness of the campaign in changing the audience’s awareness, knowledge, attitude, and behavior. “An evaluation on the media exposure is imperative to measure whether the audiences were being informed and/or were aware of the message. The second or intermediate level of public relations evaluation measures whether target audience actually received the messages, whether they understand the messages, and/or whether they have retained those messages in any shape or form.”

Key Assumptions of Individual Difference Theory and Perception Theory

The Individual difference theory proposed that an individual has personal qualities that made individual perceived message differently such as organ donation practice. These personal qualities include factors like intelligence, beliefs, opinions, values, needs, moods, prejudices, and perceptibility that shaped individual’s reaction to media contents, individual’s motivation to perception, and individual’s willingness to accept or reject the perceived message (Aggarwal & Gupta, 2001) such as organ donation decision. Individual difference theory suggested that media message contain particular stimulus that had differential interaction with personality characteristics of audience members such as age, gender, and level of education of each individual due to individual difference in personality characteristics (Aggarwal & Gupta, 2001). Another theory that was a genesis of this research is Perception Theory or Media Exposure theory which suggested that the information which was taken in by individual’s sense, process by the brain, stored in memory and produce some forms of physical and mental responses (Ellis & McClintock, 1994; Steinberg, 2007). Individual’s perception is being shaped by the five senses of individual and his or her frame of experience, whereby individual would take information, evaluate it in terms of our frame of references and either rejects it if it contradicted with their frame of references. Our frame of reference was shaped by our personal cognition, ideas, values, belief, and attitude toward a specific topic. We made use of this frame of reference to support or expand our existing frame of reference. Media exposure, selection, organization, and interpretation are process of perception in sequential order. These stages take place relatively unconsciously and almost simultaneously (Wilson, Hantz, & Hanna, 1989; Steinberg, 2007). Based on these theories, the researcher would like to explore how the individual’s gender and participation in the organ donation affect the students’ knowledge and attitude of students before and after exposing to the contents of the organ donation contest.

Effect of Media Exposure on Individual's Knowledge, Attitude, and Behavior

In addition to personal characteristics of audience, this study also examines the effect of media exposure on an individual's knowledge, attitude, and behavior of individual regarding organ donation message. The assumption of KAP Theory suggested by Everett Rogers (1971, cited in Surapong Sothanasathien, 1990) posited that individual's media exposure is a significant factor which influenced individual's knowledge, attitude, and behavior. KAP theory suggested that individual's attitude is shaped by his or her knowledge. If knowledge is learned appropriately, attitude will be formed favorably; hence, individual's behavior will be exhibited according to the favorability or unfavorability of his or her attitude. However, one may experience KAP-GAP when one's attitude may contradict with one's behavior, which will occur when one has been exposed to messages that characterized by sufficient knowledge and provoking positive attitude toward the issue but still stimulate a counter-productive behavior, not supporting the exposed message. Surapong Sothanasathien (1999 cited from Rogers, 1971) suggested that KAP-GAP can be resolved several ways: (1) Organization should promote more beneficial knowledge that will promote behavior; (2) Provide clear directions to promote the receivers' participation and engagement by using personal media; (3) Offer rewards the receivers who have supported the message with a convincing and persuasive reward as perceived by the receiver, and (4) Promote persuasive strategies by using personal media who is perceived to have high opinionship or credibility by individual to promote participation and engagement.

Media Exposure, Knowledge and Attitude of Thai People on Organ Donation in Thailand

Visit Thitawat, & Yuwadee Authajaruvisit (2016) revealed three obstacles to organ donation as perceived by Neurological doctors were difficulty in requesting for organ donation during the mourning state, lack of their own persuasive skill, and lack of a liaison to coordinate with the Thai Red Cross. If these obstacles were managed it would increase doctors' engagement in organ donation. In addition, National Statistical Office (2004 as cited in Thitawat & Authajaruvit, 2016) claimed that 80.2% of the respondents agreed with the organ donation and 56% of them were willing to donate the organ of their relatives deceased from brain death; while the rest claimed that they would not donate the organ of their relatives, because they believe that their relatives will not have organ in the next life if they donated their organ in this life ; and most importantly, they would be in the mournful state so they would not have the moment to think of organ donation. When asked about their own decision to donate their own organ, 39.6% of the respondents were "not sure" yet. The National Statistical Office also found that religious belief might be an influential factor shaping attitude toward organ donation, because the study revealed that Buddhist respondents and Christian respondents agreed with the organ donation the most when compared with other religions and believed that organ donation is considered to be good deeds (or merit) and benefits one can do to contribute to the society.

Thanyapat Phongwiwat (2013) and Suwirach Rattanamaneechot (1993), and Thongman (1993) examined the relationships among media exposure, knowledge, and attitude among nurses and Thai residents. Thanyapat Phongwiwat (2013) revealed that media exposure and attitude toward organ donation were positively correlated in high level of acceptance of organ donation among registered nurses in Chiang Rai Prachanukroh Hospital. Registered nurses had knowledge about organ donation at moderate level and attitude on acceptance of organ donation at high level. Suwirach Rattanamaneechot (1993) found that

knowledge and attitude toward organ donation among nurses working in the surgical unit or nursing unit affiliation were positively correlated. Age group and working duration in the surgical unit was not associated with their knowledge and attitude toward organ donation. Thanyapat Phongwiwat (1998) found Thai residents, especially aged 20-29 years old, still lack knowledge about organ donation after exposing to the organ donation campaign. Noppadol Thongman (1998) found that Thai residents who have significantly different in knowledge about organ donation will have significant different attitude in organ donation. The sample received the message about organ donation from television the most and received the message from advertising cutout the least. The researcher suggested that the Organ Donation Center should promote knowledge to the target audience, especially to those 20-29 years, because although they have very low knowledge about organ donation but they have high media exposure and have high tendency to support the organ donation campaign.

Knowledge and Attitude of Thai People on Blood Donation in Thailand

In the past decades, few studies examined the effectiveness of related campaign such as blood donation organized by the Thai Red Cross Society on the publics' knowledge and attitude toward blood donation. Examining the influence demographic factors on the blood donation, Nurhayti Sa-i (2014) revealed that the influence of education, religion, residing community of organ donation on attitude formation. Nurhayti Sa-i found that 87.3% of Muslim residents living in Pattani province had knowledge in the highest level, 11.7% of the respondents were at moderate level, and 1% of the respondent had low knowledge about blood donation. Muslim respondents had favorable attitude toward blood donation. Muslim residents that varied in education, religion, residing community will have significant different attitude toward blood donation at significance level at 0.01 and 0.05, and Muslim varied in residing community, occupation, and knowledge differed significantly in their attitude toward blood donation at significance level at 0.01 and 0.05.

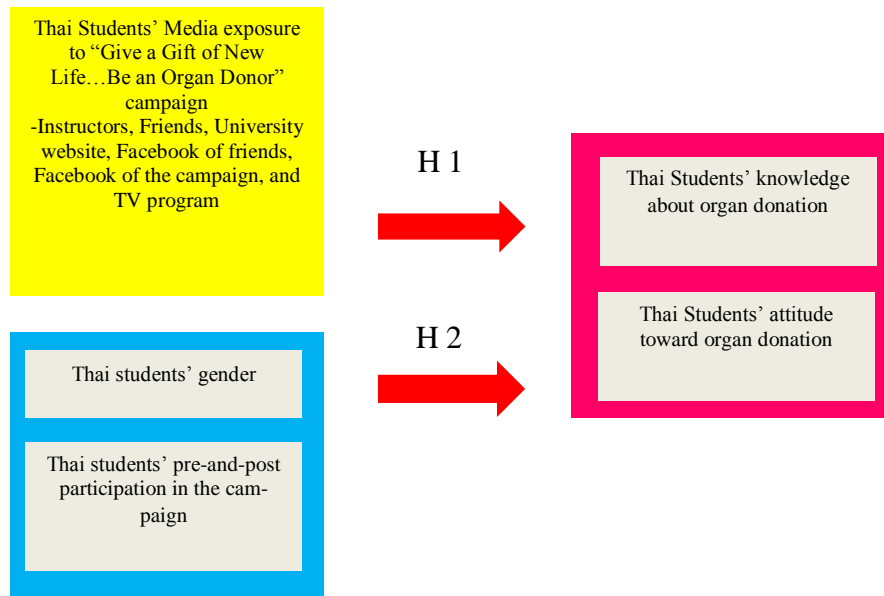
Duangdean Srimadee (2014) and Anongsri Simsiri (2011) revealed the model for blood donation and suggested factors affecting blood donation. Duangdean Srimadee (2014) revealed the basic encouraged model to promote blood donation among 320 donated and non-donated blood Thai residents in Muang Saeng Hospital in Roi-Et province. The findings found that knowledge, obstacles, and behavioral intention are the key factors affecting their decision for blood donation at the significant level of 0.01. The focus group had six factors, including knowledge, obstacle, intention, motivation, communication, and network. The encouraged model for blood donation in Roi-Et province include five activities: dialogue for blood donation, blood donation networking, a volunteer of caring to blood donor and voluntarily to blood donation, campaigning to increase blood donation donors, and dialogue after blood donation. Regarding evaluation of the model, the sample's knowledge, attitude, and practice were different between before and after implementing at the statistical significance at 0.05. In addition, Anongsri Simsiri (2011) revealed the factors influencing intention to blood donation among People of Narathiwat Province.

For evaluating knowledge about blood donation, most respondents (60%) had incorrect knowledge relating blood donation facts (physical characteristics, safe process, benefits of blood donation). Most respondents had good attitude to blood donation (93%), moderate subjective norm (80.0%), moderate perceived behavioral control (64.5%) and low intention to blood donation (37%). Factors positively related to intention to blood donation

among people in Narathiwat province were ever donating blood ($\beta = 0.22$), subjective norm ($\beta = 0.13$), number of blood donation ($\beta = 0.17$) and attitude toward blood donation ($\beta = 0.17$). Factors negatively related to intention to blood donation were student ($\beta = -0.20$) and age ($\beta = -0.18$). All six variables could explain 23.00% of the variance of intention to blood donation among people in Narathiwat province (R^2 Adjusted = 0.23). Thus, the constructing program to promote blood donation in Narathiwat should provide correct knowledge and good attitude to about blood donation. Teachers, instructors and parents are the keys subjective norm supporting teenagers to be the donor.

The past studies in organ donation (Thanyapat Phongwiwat, 2013; Suwirach Rattanamaneechot, 1993; Noppadol Thongman, 1993) and blood donation (Saii, 2014) confirmed that knowledge and attitude toward organ donation and blood donation were positively correlated. A model for blood donation were investigated to find the factors affecting blood donation (Duangdean Srimadee (2014) and Anongsri Simsiri (2011) found that past experience of blood donation, subjective norm, current statistics about blood donation, attitude toward blood donation, respectively, were factors positively related to intention to blood donation among people in Narathiwat province. Factors negatively related to intention to blood donation were student and age, respectively. However, currently there were still limited studies examining the antecedents for organ donation such as media exposure, demographic factor, and participation in the organ donation awareness campaign and its effect on the outcome of their knowledge change, attitude change, and behavioral change in relations to organ donation. Several research have found that awareness, knowledge, attitude are predictors of behavioral change according to the KAP theory as posited by Surapong Sothanasathien (1999 cited from Rogers, 1971). This research would like to which factors—whether personal factor, media exposure, or initial participation-- has a significant effect over the knowledge and attitude. An examination of the antecedents of organ donation will certainly lead to model for organ donation which will provide new knowledge in campaign management in organ donation in increasing the rate of organ donation in Thailand as illustrated in the theoretical framework.

THEORETICAL FRAMEWORK



RESEARCH METHODOLOGY

Population and Sampling Methods

Thai students aged 16-24 years studying in high schools and in university in Thailand who participated in the organ donation contest were the population of the survey. Two hundred and twenty-one students from seven high schools and six public and private universities have registered for the organ donation contest under the theme of "Give a Gift of New Life...Be an Organ Donor" campaign. However, each school has sent 6-7 representatives to attend the press conference and prize announcement ceremony. Thus, eighty-four high school and university students responded the questionnaires using purposive sampling. The researcher has distributed pre-test survey using convenience sampling during the press conference and the seminar on the topic "Significance and Benefits of Organ Donation in Thailand" where students have received several pamphlets and brochures to promote knowledge and awareness about organ donation. For the post-test, the researcher has distributed post-test survey four months later in the prize announcement ceremony using convenience sampling to check the knowledge and attitude of the students after they have produced video clip on organ donation and the role of the Thai Red Cross Society Organ Donation Center. The Hypothesis 1 and Hypothesis 2 were being analyzed using Multivariate Analysis of Covariance (MANCOVA).

Measure and Data Collection Period

The independent variables of this survey research were Thai students' media exposure to the organ donation contest under the theme "Give a Gift of New Life...Be an Organ Donor," gender, and their pre-and-post participation in the campaign. The dependent variables were knowledge on the organ donation and attitude toward the organ donation after engaging in the campaign. The data collection took place in two stages—first stage during the press conference of the campaign on February 19, 2016, before respondents engaged in the organ donation contest and the second stage on the day of the award presentation on

June 3, 2016, after respondents have engaged in the campaign. There are 5 parts in the questionnaires—Part I: Demographic data (6 nominal and/or ordinal scale questions), Part II: Media Exposure to the campaign (9 questions, five-likert scale), Part III: Knowledge about organ donation (10 questions, true and false questions); Part IV: Attitude toward organ donation (8 questions, five-likert scale); Part I: Decision to donate organ (one question, nominal question). Cronbach alpha of media exposure was 0.87, knowledge about organ donation was 0.70, and attitude toward organ donation was 0.70. During the pretest, item number 7 in the knowledge section, “Patient can receive transplant from donor who are alive” was deleted, because the corrected item-total correlation was less than 0.20. And, item number 2 in the attitude section “Organ donation for transplants is the great merit one can do in one’s life” was deleted, because the corrected item-total correlation was less than 0.20 (Nevitt & Hancock, 2004). Four statements in attitude section were recoded. All parts of instrument has Cronbach's alpha of over 0.70 which was considered to be acceptable reliability (Nevitt & Hancock, 2004).

RESULTS AND DISCUSSION

Results of Descriptive Data

Out of eighty-four respondents, 57.6% of the respondents are male ($n = 49$) and 41.2% of the respondents are females (41.2%; $n = 35$). Majority of the respondents were 20 years (23.5%; $n = 20$), 21 years old (15.3%; $n = 13$), 22 years old (12.9%; $n = 11$), 19 years old (10.6%; $n = 9$), 24 years old (8.2%; $n = 7$), and 16 years old (7.1%; $n = 6$), respectively. The samples were exposed to the organ donation contest from their instructors with the highest and high frequency (52.4 %), followed by projects’ website (38.8%), friends (24.4%), and friends’ Facebook (23.6%), respectively. More than half of the sample (57.8%) got correct knowledge about organ donation, 25.19 % of the respondents got “inaccurate” knowledge about organ donation, and 20.01% of the respondents stated that “they don’t know the answer.” The findings suggested that more than 45.20 % still had insufficient knowledge about organ donation. Out of eighty-four respondents, 60.85% of the respondents claimed that they “strongly agree” and “agree” with organ donation, dividing into 48.85% of respondents claimed they “strongly agree” and 12% of the respondents claimed that they “agree” with organ donation, respectively. In addition, 32.78 % of the respondents had “neutral,” “strongly disagree,” and “disagree.” The findings showed that 13.07% of the respondent claimed that they had a “neutral” attitude toward organ donation (13.07%), followed by disagree (11.78%), disagree (7.94%), respectively.

When comparing their intention to donate their organ, there is an increase in the percentage of organ donation between the two phases, “before” and “after” participation in the campaign—labeling as pre-and-post participating in the campaign. In overall, after participating in the campaign, Table 1 showed that 42% of respondents claimed that they will donate their organ while 58 % of the respondents claimed that they were “not sure yet” whether they will donate their organ. Only one of the respondents said they would not donate their organ and 47 respondents claimed they were “not sure” yet. To manage the homogeneity among the respondents, group who claimed “Not sure” and “decide not donate” were combined together into the same group, relabeling as “Not sure,” accounting for 58% of the respondents. When examining how the campaign affect their intention to donate organ, the results of “before” or pre-participation in the campaign revealed that 37.1% of the respondents ($n = 13$) will certainly donate their organ, and 62.9% of the

respondents ($n = 22$) have not decided to donate. Most importantly, 45.7 of respondent ($n = 21$) in the post participation reported that they will certainly donate their organ while 54% of the respondents ($n = 25$) have not decided to donate their organ. The findings suggested that the campaign has some effect on their decision to donate their organ but the effect was insignificant (Chi-Square₍₈₁₎ = 0.591, $p > 0.05$) as shown Table 1. The explanation to support this result was culturally most of the Thai students were under the supervision of their parents; hence, they cannot make their own personal decision to be organ donor by themselves due to their age limitation. Hence, they required a consensus from their parents and relatives which is of the requirement for organ donation (Thai Red Cross Organ Donation Center, 2016).

Table 1.

Chi-Square Results Analyzing the Relationship between Thai Students' Pre-and- Post Participation and Their Intention to Be Organ Donor in the Future

		Will donate	Not sure yet	Total
Pre-and-Post Intention to be organ donor before and after participating in the contest	Before participating in the contest % within Group	13 37.1%	22 62.9%	35 100%
	After participating in the contest % with Group	21 45.7%	25 54.3%	46 100.0%
Total	Before-and After participation % with Group	34 42.0	47 50%	81 100%

Notes. $\chi^2 = 0.591^a$, $p = 0.295$, $p > 0.05$, $df = 1$, $p > 0.05$, $n = 81$.

Results of Hypothesis Testing

As shown in Table 2, the Multivariate Analysis of Covariance (MANCOVA) results indicated that Thai students' knowledge and attitude were significantly associated with their pre-and-post intention to be organ donor before-and-after participating in organ donation contest according to Wilks' Lambda ($F_{(2)} = 75.207^{b*}$, $p < 0.05$) and by the interaction between gender difference and pre-and-post intention to be organ donor before and after participating in the contest ($F_{(2)} = 2.686^{b**}$, $p < 0.10$) but the knowledge and attitude were not significantly associated with their media exposure ($F_{(2)} = 1.342^b$, $p > 0.05$). Hypothesis 1 was not supported.

As shown in Table 3, the Univariate results revealed that students' gender ($F_{(1)} = 2.976^*$, $p < 0.10$), pre-and-post intention to be organ donor ($F_{(1)} = 149.283^*$, $p < 0.05$), and the interaction between gender and pre-and-post intention to be organ donor ($F_{(1)} = 4.316^*$, $p < 0.05$) significantly influenced their attitude toward organ donation; however, gender ($F_{(1)} = .248$, $p > 0.05$), pre-and-post intention to be organ donor ($F_{(1)} = .006$, $p > 0.05$), and the interaction between gender and pre-and-post intention to be organ donor before-and-after participating in the contest ($F_{(1)} = 1.605$, $p > 0.05$) had no significant impact on their knowledge. Media exposure to the campaign did not significantly influence the students' knowledge ($F_{(1)} = 1.820$, $p > 0.05$), and attitude ($F_{(1)} = 0.648$, $p > 0.05$) to the organ donation. Hypothesis 2 was partially supported.

When examining the mean of attitude in relations to pre-and-post participation in the campaign, the results in Diagram 1 indicated that the mean of pre-intention to be organ donor is higher ($\bar{X} = 3.01$) than post-intention ($\bar{X} = .90$) whereby covariates were evaluated at the mean of 2.603 for attitude. Diagram 2 showed male respondents ($\bar{X} = 2.43$) had higher attitude toward organ donation than female ($\bar{X} = 2.23$). In addition, Diagram 3 showed that the interaction results of gender and pre-and-post intention to be organ donor suggested that both male and female respondents had lower attitude toward organ donation before participating in the contest. Male respondents' attitude reduced from $\bar{X} = 3.00$ to

$\bar{X} = 1.80$ and female respondents' attitude reduced from $\bar{X} = 3.03$ to $\bar{X} = 1.50$. Male respondents had higher attitude toward organ donation in pre-and-post participation than female respondents as illustrated in Diagram 3.

Table 2.

Multivariate Test on the Influence of Media Exposure, Gender, Pre-and-Post Intention to Be Organ donor on thai Students' Knowledge and Attitude toward Organ Donation

Effect		Value	F	Hypothesis df	P
Media exposure to organ contest	Wilks' Lambda	.967	1.342 ^b	2	.267
Pre-and-post intention in organ contest before-and-after participating in the contest	Wilks' Lambda	.341	75.207 ^{b *}	2	.000
Gender	Wilks' Lambda	.963	1.501 ^b	2	.229
Pre-and-post participation *Gender	Wilks' Lambda	.936	2.686 ^{b**}	2	0.074

Notes. * $p < .05$, ** $p < .10$.

Table 3.

Univariate Tests on the Influence of Media Exposure, Gender, Pre-and-Post Participation Among Thai Students' Knowledge and Attitude toward Organ Donation

Source	Dependent variables	df	Mean Square	F	p
Media exposure to organ donation contest	Knowledge about organ donation	1	.134	1.820	.181
	Attitude toward organ donation	1	.155	.648	.423
Pre-and-post intention to be organ donor before-and-after participating in contest	Knowledge about organ donation	1	.018	.248	.620
	Attitude toward organ donation	1	35.725	149.283*	.000
Gender	Knowledge about organ donation	1	.000	.006	.939
	Attitude toward organ donation	1	.712	2.976**	.088
Pre-and-post intention to be organ donor * Gender	Knowledge about organ donation	1	.118	1.605	.209
	Attitude toward organ donation	1	1.033	4.316*	.041

Notes. * $p < .05$, ** $p < .10$.

Diagram 1. Comparing the Mean of Attitude as Associated with Pre-and-Post Intention to Be Organ Donor before-and-after Participating in the Prgan Donation Contest

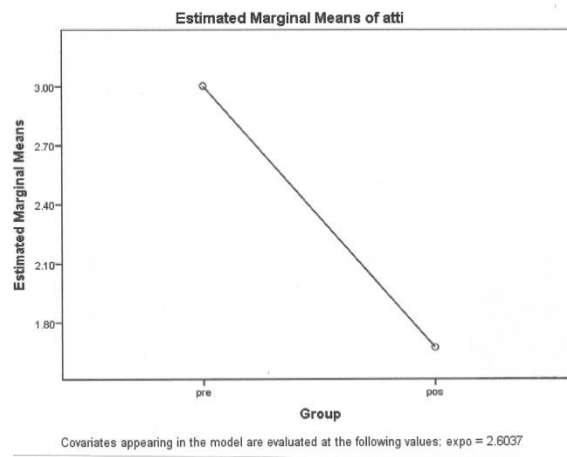


Diagram 2. Comparing the Mean of Attitude as Associated with Their Gender

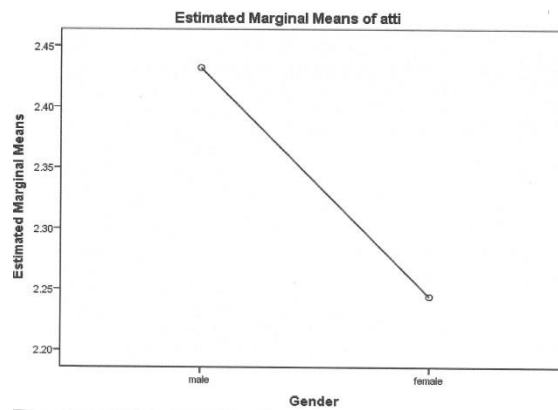
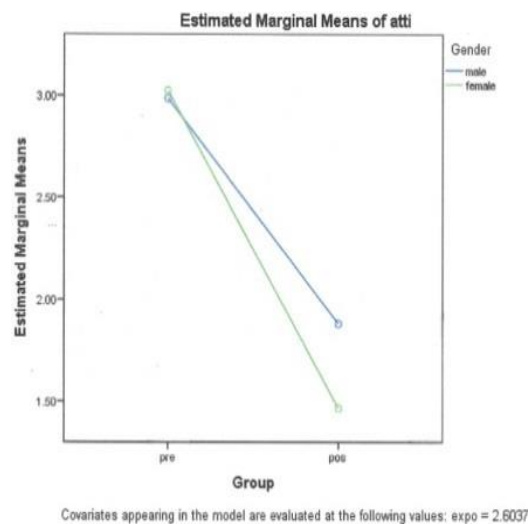


Diagram 3. Comparing the Mean of Attitude as Associated with Their Gender and Pre-and-Post Intention to Be Organ Donor before-and-after Participating in Organ Donation Contest



DISCUSSION AND CONCLUSION

The findings indicated that Thai students' knowledge and attitude were significantly associated with their pre-and-post intention to be organ donor before-and-after participating in the organ donation contest and by the interaction between gender difference and pre-and-post intention to be organ donor but their knowledge and attitude were not significantly associated with their media exposure. The Univariate results revealed that students' gender, pre-and-post participation, and the interaction between gender and pre-and-post intention to be organ donor significantly influenced their attitude toward organ donation but no significant impact on their knowledge. Media exposure to the campaign did not significantly influence the students' knowledge and attitude to the organ donation.

The findings supported the Individual Difference Theory which underscores the influence of demographic factor especially *gender* as an influential factor in shaping Thai youngsters' knowledge and attitude toward organ donation. Male respondents had higher attitude ($\bar{X} = 2.43$) toward organ donation than female respondents ($\bar{X} = 2.23$). In addition, the interaction results of gender and pre-and-post intention to be organ donor before-and-after participating in the organ donation contest suggested that female respondents have lower attitude toward organ donation in the pre-participation than male respondents. When comparing pre-and-post participation, the findings showed that male respondents' attitude reduced from $\bar{X} = 3.00$ to $\bar{X} = 1.80$ and female respondents' attitude reduced from $\bar{X} = 3.03$ to $\bar{X} = 1.50$. Male respondents had higher attitude toward organ donation in pre-and-post participation than female respondents. The reason might be because in nature male respondents were less superstitious and have higher acceptance organ donation at high level (Thanyapat Phongwiwat, 2013; Noppadol Thongman, 1998). Men tend to have favorable attitude toward organ donation, because they are less superstitious about the consequence of their future life if they donate their organ today. Men give attention to the present action rather than the future action. Female tend to be superstitious because they believe that they might have no organ in their future life if they donate their organ donation. Thus, men were likely to have higher intention and motivation for organ donation than female (Thanyapat Phongwiwat, 2013; Noppadol Thongman, 1998). Most importantly, it is imperative to note that both male and female respondents' attitude reduced after they engaged in the organ donation contest due to a presence of KAP gap during the data collection about the organ donation.

The students found that the contents still lack of emotional persuasion and lack inspiration from donors and terminal patients who have successfully engaged with organ donation. Red Cross Society Organ Donation should publicize in the media about the experiences and feeling of both the donors and organ transplant recipients so that youngster will be inspired and emotional connected with in their life. Most of youngsters might still believe that organ donation has low relevance to their life. Thus, the Thai Red Cross Society must apply the assumption of Elaboration Likelihood Model (ELM), which suggested that persuasion will be successful if the target audience perceived the message to have high relevance or high involvement to target audience's life. And, high or low involvement can be created by promoting central processing and/or peripheral processing of information. Relevance to the message is the factor that shaped audience's high or low involvement in the message (Larson, 2010). Hence, Thai Red Cross Society must create a message that has high relevance to promote central processing information in the organ donation which tend to be counter-persuasion to overcome the superstitious belief that "one would have no or-

gan in the next life if one donate his/her organ.” Nevertheless, emotional persuasion can also be applied by intensifying the good points of the organ donation and inspiring prospect donors to feel the happiness one can receive from the subjective norms such as parents, friends, instructors which were found to be the key predictors of organ donation (Anongsri Simsiri, 2011). If the persuasion of the organ donation could promote the rational process of assessing personal belief and attitude in conjunction with the normative beliefs of people that are important to them, such persuasion will certainly promote youngsters’ behavioral intention for organ donation in the future, which is considered to be the antecedents of one’ behavior as suggested by Theory of Reasoned Action (TRA). As posited by the Theory of Reasoned Action (TRA), behavioral intention for organ donation was the product of two assessments: (1) a person’s attitude toward the behavior and its importance to him or her; and (2) the normative influence on an individual and its importance to an individual (Larson, 2010). Hence, Thai Red Cross Society Organ Donation Center should use the TRA assumption as a genesis of their campaign, by stressing how the organ donation has high relevance to the Thai youngsters’ life or their beloved ones so that they will recognize the significance and relevance of the organ donation to their own life and to loved ones. In addition, the message should reinforce how organ donation will create a difference to their loved ones as others in the society in the future.

Coincided with Duangdean Srimadee (2014), the findings highlighted the knowledge and motivation, dialogue for blood donation, campaign to increase blood donation donors, and dialogue after blood donation. Thai youngster participated in this organ contest received more knowledge about organ donation because they had to search information and fact about organ donation while producing the video clip and writing public relations plan. In addition, understanding the necessity for organ donation in Thailand and analyzing the target audience’s motivation made them fully involved and accepted the value of organ donation. Hence, learning about the insight, values, and belief of prospect donors made them able to identify with their own insights as prospect donors. Hence, there was a significant difference in their intention to be organ donor before and after participating in the contest. The organ donation contest can promote dialogue among students and their networks and it is a campaign to promote the rate of organ donation among Thai youngsters. Dialogue is the rationale behind which explained why pre-and-post participation significantly influenced their attitude toward organ donation due to emotional involvement and active participation in the learning process.

The findings revealed that there was a KAP gap between the knowledge and attitude toward organ donation as posited by Surapong Sothanasathien (1999 cited from Rogers, 1971). More than half of the sample (57.8%) got correct knowledge about organ donation, 25.19 % of the respondents got “inaccurate” knowledge about organ donation, and 20.01% of the respondents stated that “they don’t know the answer.” The findings suggested that more than 45.20 % still have insufficient knowledge about organ donation. On the other hand, out of eighty-four respondents, 60.85% of the respondents claimed that they “strongly agree” and “agree” with organ donation, dividing into 48.85% of respondents claimed they “strongly agree” and 12% of the respondents claimed that they “agree” with organ donation, respectively. In addition, 32.78 % of the respondents had “neutral,” “strongly disagree,” and “disagree.” These findings indicated that Thai students recognized the value of organ donation in giving new life to organ recipients and bring social benefits to the nation as a whole. However, Thai students still lack correct knowledge about organ donation. The Thai Red Cross Organ Donation must promote sufficient knowledge among Thai

youngster extensively. Thus, the Thai Red Cross Organ Donation Center should resolve KAP-GAP in the campaign in several ways: (1) the Thai Red Cross Organ Donation Center should promote more beneficial knowledge and current statistics about organ donation that will promote organ donation by indicating the benefits of joining the campaign and negative consequences of not joining the campaign to patients who waiting for organ transplantation; (2) Provide clear directions to promote the Thai residents' participation and engagement in organ donation campaign by using personal media and new media to promote online interaction and emotional connection with the prospect donor; (3) Offer rewards the Thai residents who have supported the message with a convincing and persuasive reward as perceived by the receivers; (4) Promote rational process of assessing the personal belief that "one will have no organ in the next life if one donates organ," by using subjective norm as monk, teachers, parents to change the personal belief. In fact, the youngsters nowadays don't have this personal belief but they are being taught by their parents when they were young of life after death.(5) Promote emotional connectedness and relevance in the message to promote the positivity of the organ donation, especially how giving a new life is an eternal happiness and merit that one can receive immediately in the current life and next life. Giving a new life will certainly make the next life a better life, because "Eternal happiness begins with one's gift of new life ...Be an organ donor." (6) Use persuasive strategies by using personal media who is perceived to have high opinion-ship or credibility as perceived by Thai residents in order to promote their increased participation and engagement in the organ donation campaign (Rogers, 1971 as quoted in Surapong Sothanasathien, 1999).

This research on the antecedents—media exposure, gender, their personal intention to be organ donor and its effect on the knowledge and attitude toward organ donation will be a valuable knowledge in campaign management measurement in organ donation for Thai Red Cross Society and other organizations that are planning an organ donation campaign or relevant campaign. The knowledge can be used as a model of management for organ donation initiatives. Academicians and practitioners in public relations and advertising can apply the results to create a health communication model to execute an effective persuasive campaign that could promote the rate of organ donation in Thailand, save the lives of patients who are in the waiting lists of organ recipients, and increase the life quality of handicapped people in Thailand. Public Relations practitioner of a health communication campaign might recognize the impact of event significantly as a strategy to promotion emotional participation and engagement in the organ donation among Thai youngsters and pay more attention to gender difference in respect to attitude toward organ donation. The fact that male youngster have higher intentions to be organ donor might be an opportunity for the organ donation campaign to reach male prospects more in the future and offer a challenge for the Thai Red Cross Donation Center to put more public relations efforts in several ways such as organizing Organ Donation camp or Student Volunteer Program to promote knowledge and change the belief of female students about organ donation as well as advocate interesting updates about organ donation among youngster via new media and mass media. The research offers a new innovation in the form of organ donation contest in promoting a health communication campaign in Thailand.

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OBSTACLES OF THAI SMES IN APLYING FOR HALAL CERTIFICATION

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ABSTRACT

This paper aims at exploring the perception of the Small and Medium Enterprises (SMEs) in Thailand regarding the obstacles inhibiting their application process for *halal* certification from the Central Islamic Committee of Thailand (CICOT). In-depth interviews were conducted with 20 Small and Medium Enterprise (SME) entrepreneurs selected purposively from four business areas: food and beverages; cosmetics, pharmaceuticals & herbs; food premises; and spa products, tourism, hotel & hospital. The responses were thematically categorized in accordance with the objectives and presented descriptively. The findings reveal certain major obstacles faced by Thai Small and Medium Enterprises (SMEs) in applying for *halal* certification. The most important obstacle is the limited human and financial resources of the Small and Medium Enterprises (SMEs) to modify the whole organizational structure and the manufacturing process as prescribed, and to pay for extra costs. Another obstacle concerns the lack of interpersonal relationship and network with the CICOT staffs that may provide beneficial advice, guidelines, and related information regarding pre-assessment and coaching.

KEY WORDS: *Halal* certification, Thai Small and Medium Enterprises (SMEs), CICOT

INTRODUCTION

The global trade values of *halal* food in 2015 were higher than 1.1 billion US dollars, rising from 661 million dollars in 2011, and are being expected to rise continually. Brazil was having the highest share of *halal* food exportation (12%), followed by the United States of America (8%), India (6%), France (5%), and China (5%) (Industry Journal, 2015). The growing number of Muslim population of 1.8 billion, or 23% of the world population, has enabled the *halal* market more promisingly profitable for both the Islamic and non-Islamic countries. In ASEAN only, the total Muslim population is estimated to exceed 300 million people, living predominantly in Indonesia (the biggest Muslim-populated country), Malaysia, and Brunei (Aree, Minto, Aree, & Usman, 2014).

The market share of *halal* food products for Thailand accounted for 4% in 2014, or the 6th ranking of *halal* food exporters, with the total values of 5,800 million US dollars (Managing editor, 2015). The food products were mainly exported to Indonesia, Nigeria, Oman, Iraq, Iran, Bangladesh, to name just a few. The major products exported included canned seafood, frozen shrimp, canned tuna, rice & cereals, fruits & vegetables, fruit juice, chicken meat, and food additives (Khasuwan, 2010).

In 2014, there were 2,736,744 Small and Medium Enterprises (SMEs) in Thailand, or 99.7% of the total businesses, leading to the employment of 10,501,166 people or 80.3% of the total employment, and creating 5,212,000 million Baht of GDP or 39.6% of national GDP (Office of Small and Medium Enterprise Promotion (OSMEP), 2017). Since almost all of them (99.5%) were categorized as the small enterprises, they have been encountering various problems that inhibited their growth to the medium-enterprise category. Those problems included, for example, access to bank loans, lack of management knowledge and skills, and limited expansion to both domestic and international markets.

The similar problems were also found among the Small and Medium Enterprises (SMEs) in Indonesia. According to Abdul, Ismail, Mustapha, and Kusuma (2013), over 99.95% of Indonesian economy was significantly driven by the Small and Medium Enterprises (SMEs), especially the food business. However, 82% of food SMEs did not operate to meet the requirements of food safety and quality standards (*halal* standard included). This incident stemmed basically from their non-awareness of the available domestic and international quality standard systems. Moreover, only a few had operated their business in accordance with the international food quality standards and management systems (e.g., GMP, ISO 900, HACCP), rendering them little or no opportunity for product exportation to the international markets.

Despite no information was found regarding the quality practices of Thai Small and Medium Enterprises (SMEs), they might be assumed to have been facing the similar realm of problems. As stated in the SME Promotion Plan (2017-2021) (Office of Small and Medium Enterprise Promotion (OSMEP), 2017), problems of Small and Medium Enterprises (SMEs) in Thailand included low labor productivity, dependency on domestic markets, concentration on nonfuel primary commodities and medium skill & technology, and limited access to bank loans. The SME Promotion Plan (2017-2021) stated the necessity to uplift the standards and management systems of Small and Medium Enterprises (SMEs) to be a high-value business to increase its competitiveness in the world market. As a result, *halal* certification of Small and Medium Enterprise (SME) products may serve as the value-added feature for SMEs growth in the future.

According to information from LPPOM-MUI (Abdul, Ismail, Mustapha, & Kusuma, 2013), 63% of Indonesian products carried no *halal* label. It was reported that the voluntary principle, together with the lengthy and costly process of *halal* application had generally discouraged the Indonesian Small and Medium Enterprises (SMEs) in applying for *halal* certification. With no systematic research on the perception of Thai Small and Medium Enterprises (SMEs) regarding the application process for *halal* certification mark from CICOT, this research, therefore, aims particularly at exploring the perception of Thai Small and Medium Enterprises (SMEs) in this aspect. The research findings will hopefully generate extensive awareness among all parties concerned, and necessary measures may be conjured accordingly.

Objective of the Study

This research aims at studying the perception of Small and Medium Enterprises (SMEs) in Thailand regarding the obstacles inhibiting their application process for *halal* certification from the Central Islamic Committee of Thailand (CICOT) or the Provincial Islamic Council. Those obstacles may be caused by the religious organization, the government, or may stem from the entrepreneurs themselves.

LITERATURE REVIEW

Thai government has stated clearly in the Strategy to Promote and Develop Halal Products and Services (2016-2020) (Department of Industry Promotion, 2016), to make Thailand a major ASEAN and global base of production and exportation of *halal* products and services. This strategy covered the expansion of *halal* service businesses, such as tourism, *halal* kitchens in hospitals and hotels, health services, life insurance, and finances.

However, less than 10% of all food exporters have currently received the *halal* certificate. This incident may partly stem from the delay of *halal* certification application process. According to the Director of Division II of Sectoral Industries Development, Ministry of Industry, the *halal* certifying process must be fast and convenient, with clearly designated processing fees, so as to encourage the Small and Medium Enterprises (SMEs) to apply for the *halal* certificate (Nanawan, 2015).

The sole authorized organization in Thailand to inspect, monitor, and approve a product/service as qualified for *halal* certification mark is the Central Islamic Committee of Thailand (CICOT) or the Provincial Islamic Council located in 34 provinces around the country (CICOT, 2016). In a seminar on “Perception of *Halal* Potentials for AEC Market,” the deputy director of the Halal Standard Institute of Thailand, and the director of Halal Livestock Product Development, identified three types of obstacles that inhibited the development of Thai *halal* market. Those obstacles were caused by the government, the religious organizations, and the entrepreneurs themselves (Laumud & Wareesri, 2014).

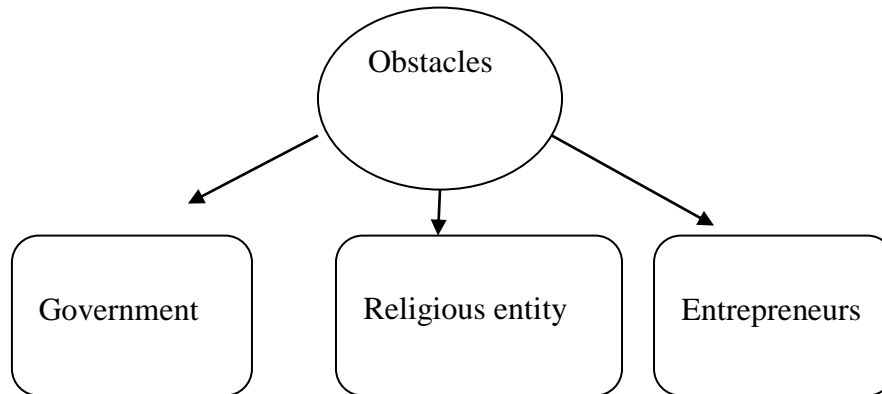
The obstacles triggered by the government included the lack of understanding regarding *halal* principles, lack of integrity among the in-charge government agencies, and unavailability of comprehensive database of the *halal* industry. As for the religious organizations, the obstacles arose from their incapability to efficiently enforce and implement the existing *halal* rules and regulations, shortage of *halal* -related staff, lack of skills in system management, inspection, and monitoring of *halal* certification process and *halal* label. The entrepreneurs themselves reportedly possessed little skills in penetrating the *halal* food market in the Islamic countries. The obstacles to the application process are summarized in Figure 1.

This study, therefore, aims at tackling the perception of Small and Medium Enterprises (SMEs) in Thailand regarding the obstacles inhibiting their application process for *halal* certification from the Central Islamic Committee of Thailand (CICOT) or the Provincial Islamic Council. The obstacles may be arising from the entrepreneurs themselves, from the government, and/or from the religious organizations (CICOT or the Provincial Islamic Councils).

Research Question

What is the perception of Small and Medium Enterprises (SMEs) in Thailand regarding the obstacles inhibiting their application process for *halal* certification from the Central Islamic Committee of Thailand (CICOT) or the Provincial Islamic Council?

Figure 1. Conceptual Model



METHODS

A qualitative research was conducted using in-depth interviews with 20 Small and Medium Enterprise (SME) entrepreneurs selected purposively from four business categories: food and beverages; cosmetics, pharmaceuticals & herbal products; food premises (restaurants); and spa products, tourism, hotels and hospitals. None of them received a *halal* certificate, stating clearly that they had no intention to apply for *halal* certification mark.

Instrument

The instrument was interview questions asking about the respondents' perception regarding the obstacles inhibiting their application for *halal* certificate from the Central Islamic Committee of Thailand (CICOT) or the Provincial Islamic Council. Three experts were asked to check the question validity, and they reported that the questions corresponded well with the stated research objective.

Data Collection & Analysis

In-depth interviews were conducted in 2016 with 20 Small and Medium Enterprise (SME) respondents who were purposively selected. The responses were categorized to answer the stated research question in accordance with the objective and presented descriptively

FINDINGS

The findings revealed the key informants' perception of Small and Medium Enterprises (SMEs) in Thailand regarding the obstacles inhibiting their application process for *halal* certification from the Central Islamic Committee of Thailand (CICOT) or the Provincial Islamic Council. Three types of obstacles were identified: those caused by (1) the government, (2) the religious organizations, and (3) the entrepreneurs themselves.

Obstacles from the Government

The respondents identified their opinion regarding the supports from related government agencies. The Small and Medium Enterprises (SMEs) located in Bangkok unanimously agreed that they could easily get access to information concerning the government support activities, e.g. trainings, product exhibition, financial aids. However, those in the provincial areas found it hard to get access to such information, since their business was mostly of the micro enterprise, self-employed, necessity entrepreneur, or the community enterprise. As a result, they were not adequately equipped with communication and technological skills to actively search for information about the supports to be provided by the in-charge governmental agencies. Hence, direct contacts with regional and local government agents were deemed more fruitful and responsive to their needs. As stated by a slaughtering house entrepreneur in the central-area province,

“They [the government livestock officers] are very friendly and providing a lot of information to me, such as how to improve the premises conditions to meet the GMP [Good manufacturing Practices].”

The said government agents, however, played an influential role in discouraging the local Small and Medium Enterprises (SMEs) from applying for the *halal* certificate, indicating that *‘it is costly and hard to get,’* since a lot of modifications in terms of premises, organizational structure, and personnel management must be firstly implemented. Moreover, if the entrepreneurs had no intention to sell their products to the Muslim markets or export to Islamic countries, *“no halal certificate is needed.”*

Obstacles from the Religious Organizations

The obstacles arising from the religious bodies could be categorized into two groups: documents and fees. Regarding the documents needed to submit for preliminary inspection, the Small and Medium Enterprises (SMEs) in both Bangkok and provincial areas indicated that the document-preparing task was *“very complicated and time-consuming.”* Since their business could not afford to hire a lot of staff, they had no hands to help preparing the required documents, and that made them reluctant to apply for *halal* certificate.

Another issue was the fees concerned in applying for a *halal* certificate which was considered relatively expensive for the Small and Medium Enterprises (SMEs), particularly when compared with their earnings. One local restaurant owner stated that her business was run with a bank loan, so *“once I got some profits from my business, I have to pay back my loans first, and then feed my family, and keep the rest for raw material payment. I have none left to pay for halal fees.”*

Obstacles from the Entrepreneurs

The obstacles elicited from the entrepreneurs themselves involved their own attitude towards *halal* certification and the authorized religious bodies. Some Muslim entrepreneurs stated their disagreement regarding *halal* application in case that the business owner was a Muslim. One Muslim entrepreneur stated that *“being Muslim is enough to generate trust and confidence among the [Muslim]consumers, if we don’t abide with the Islamic rules, the sin is certainly bestowed on us, not the customers.”* In this case,

they perceived that the *halal* application was “*useless, burdensome, and annoying,*” and that the *halal* certification should be enforced with only the non-Muslim entrepreneurs. Nonetheless, even the non-Muslim entrepreneurs still perceived that the *halal* application process was complicated and hard to understand. As stated by a spa-product entrepreneur, “*I don’t know where to start, or who to contact, so I sought advice from my friend, and she told me to leave the halal unattended.*”

Another obstacle was market concentration of the Small and Medium Enterprise (SME) business. One herbal-product entrepreneur firmly stated that she needed not apply for *halal* certificate, since “*my target customers are not Muslims.*” That is, in the domestic markets, her products were sold mainly to the customers residing in the North and Northeast regions, where the Muslim population was minimal. Besides, her herbal products sold extremely well with the Chinese and Japanese tourists, yet she had no intention to export her products to the Islamic countries. However, the respondents unanimously agreed that the *halal* label is a must if they launched their products to Malaysia or Indonesia.

With the products aimed primarily at the domestic markets, *halal* certification mark was considered unnecessary and relatively ‘*extravagant*’. Unlike a big firm, the Small and Medium Enterprise (SME) entrepreneurs would have to focus on the required quality and management standards first (for example, FDA, GMP, GHP) before shifting their interest to the optional *halal* standards. “*I have to get approval from FDA first, or else I cannot launch my [spa] products to the market. I then apply for GMP and GHP for my manufacturing factory. Halal label is not needed because I didn’t sell my products to Muslims,*” stated one entrepreneur.

The similar issue was reinforced by a small restaurant owner, where the majorities of his customers were regular patrons who rarely demanded that a *halal* certificate or label be clearly displayed on the premises. One respondent stated clearly that “*as long as my customers are happy with my foods, I think halal is not necessary. Those who want to see a halal label may eat elsewhere.*”

The limitation of human and financial resources was one major obstacle for the Small and Medium Enterprises (SMEs) to apply for a *halal* certificate. When compared with a big firm regarding the *halal* application, the Small and Medium Enterprise (SME) entrepreneurs would inevitably encounter particular disadvantages in terms of organizational structure & premises modification, availability of personnel, and personal relationship development with the authorized agent.

In general, a big firm had regularly allocated a fixed budget to pay for *halal* procedural and processing fees, with a lot of staff to be assigned specifically to supervise the working and manufacturing processes to operate in accordance with the *halal* requirements. Some big firms may even pay a lump sum to hire a ‘*consulting team*’ to be in charge of the factory & facility design and patterns of organizational structure and personnel management so as to meet the *halal* requirements. In contrast, the Small and Medium Enterprise (SME) entrepreneurs could not possibly afford to cope with such incurring costs and endeavors. One respondent stated that “*we’re advised to hire 2-3 Muslim workers, to forbid non-halal foods on the premises, and to have fences built around our premises to keep out stray dogs. It’s very expensive and impossible indeed.*”

Another issue concerned the development of interpersonal relationship with the authorized religious agent who was specifically assigned to handle the inspection of the production and manufacturing procedures. Such relationship was commonly developed between the said agent and big firms, who had been in long and continuous contacts with one another throughout the years. Additionally, this type of relationship was rare among the Small and Medium Enterprises (SMEs) who are new in the *halal* affairs. The lack of interpersonal relationship and network with the CICOT agents may prevent the provision of beneficial advice, guidelines, and related information regarding pre-assessment and coaching. One respondent stated that “*big firm is rich; they can do almost anything. They know people; and that makes the [halal] applying process easy for them.*”

DISCUSSION

The obstacles inhibiting the Small and Medium Enterprises (SMEs) to apply for the *halal* certification mark were categorized into three types: those arising out of the government agencies, the religious bodies, and the entrepreneurs themselves. However, all three obstacles were interdependent. With limited educational backgrounds in terms of technology, information accessibility, and network formation, the Small and Medium Enterprises (SMEs), particularly those in provincial areas, relied mostly on personal contacts and advice provided from the in-charge government agents. Moreover, since the application for *halal* standard is optional, the Small and Medium Enterprises (SMEs) would give their first priority to the required quality standards. This incident was confirmed in a study of Abdul, Ismail, Mustapha, and Kusuma (2013), who quoted the LPPOM-MUI, a *halal* certifying body of Indonesia, that the voluntary basis of *halal* application in Indonesia was one of the factors that discouraged the Indonesian Small and Medium Enterprises (SMEs) in applying for *halal* certificate.

Furthermore, the Small and Medium Enterprises (SMEs) also perceived that the processing fees for *halal* application is relatively high for them, especially when their business was ‘*small*’ or ‘*medium*’ and thus generated a mediocre-level of sales and profits. Adding the *halal* processing fees to their costs might be unaffordable. As a result, as long as the *halal* certificate is optional, they would willingly put this religious standard behind at this particular moment.

In addition to providing adequate information constantly to the Small and Medium Enterprises (SMEs), a strategy to alleviate the financial burden of Small and Medium Enterprises (SMEs) is the fee subsidy offered by the government, as being currently implemented to some entrepreneurs by Office of Small and Medium Enterprise Promotion (OSMEP). However, the government’s fee subsidy should not be restricted to only a one-year period; else it would be a waste since the *halal* certification mark is valid for only one year. Instead, the subsidy should be offered in provision that the Small and Medium Enterprise (SME) business would stay with the *halal* standardization for 3 years, and the subsidized amount would be proportionately lessened to zero within 5 years. This kind of strategy may hopefully attract the Small and Medium Enterprises (SMEs) to acquire the *halal* quality standard.

As for the religious body, the fees may be collected from the Small and Medium Enterprises (SMEs) based on the business type, size, and annual incomes. This regulation would be compatible with the one currently practiced in Malaysia (Jabatan Kemajuan Islam Ma-

laysia (JAKIM), 2015). Likewise, the first-year fees may be charged way below the limit line, so as to prompt the Small and Medium Enterprises (SMEs) to apply for the *halal* certified quality standard.

Lastly, the Small and Medium Enterprises (SMEs) themselves should incessantly equip themselves with necessary knowledge and information on *halal* issues. Since the *halal* products and services will be increasingly demanded in the global marketplaces, Thai Small and Medium Enterprises (SMEs) have to be capable of riding with the fast-moving trend of *halal* industry.

Since this research explored the obstacles perceived by the Small and Medium Enterprises (SMEs) as inhibiting them to apply for the *halal* certification mark, future research may investigate the aforesaid issue from the perspectives of the government agencies and the religious bodies. As a result, a well-rounded picture of the current situation and the practical solutions to the existing obstacles may possibly be obtained.

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**THAI ENTREPRENEURS' PERCEPTION REGARDING BENEFITS
RECEIVED FROM HALAL CERTIFICATES**

by

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ABSTRACT

This paper aims particularly to explore Thai entrepreneurs' perception regarding the benefits they expected and actually received from *halal* certificates. A survey was conducted during May-September, 2016, with 414 entrepreneurs selected on the voluntary basis from four business areas, namely (1) food and beverages, (2) cosmetics, pharmaceuticals & herbs, (3) food premises, and (4) spa products, tourism, hotel & hospital. Paired t-test was used to compare the respondents' perception regarding their expected and actual benefits before and after obtaining the *halal* certificates. According to the findings, their actual benefits were significantly rated as lower than their expectation prior to applying for the *halal* certificates, particularly concerning the increase of Muslim customers, the supports from state and private sectors, the opportunity to join domestic and international product exhibitions, and product quality acceptance.

KEY WORDS: *Halal* certificates, Thai entrepreneurs, expected and actual benefits

INTRODUCTION

Halal certification is a quality certifying standard that aims at determining the procedural rules and regulations of manufacturing and production practices to be in accordance with the Islamic requirements (Ruzevicius, 2012). It is specifically related to the quality culture and quality value orientations of products and services, and considered as an increasingly important product/service quality standard in the domestic and international markets. Since the *halal* market is currently one of the profitable marketplaces, *halal* certification has thus reflected the acceptance of product/service quality as permissible by Islamic law (Dube, Hongxia, Haijuan, & Lijun, 2016).

Stated in the *World Halal Forum* (2011), the global market values of *halal* foods accounted for 661 billion US dollars, and rose to 1.1 trillion US dollars in 2015 (Industry Journal, 2015). This huge market value is basically due to the increasing number of Muslim population that currently accounted for 25% of the world populations, being estimated to reach 1.9 billion in 2020 and 2.2 billion in 2030 (Wanwijak, 2015).

Halal certification extends beyond the certification of merely food-related products, to cover a variety of businesses (Ruzevicius, 2012), e.g., pharmaceuticals, cosmetics, tourism, and finance. Furthermore, certain importing Muslim countries in Asia and the Middle-east region demanded the inspection and implementation of “*halal logistics*” that separate the *halal* products from the non-*halal* ones throughout the whole production to consumption processes, to guarantee no possibility of contamination (Dube, Hongxia, Haijuan, & Lijun, 2016).

Recognizing the business potentiality of *halal* products, Codex Alimentarius Commission (CAC) of World Health Organization (WHO) and Food and Agriculture Organization (FAO) has specified the guidelines for *halal* certification. These guidelines focus particularly on three requirements: no contamination of prohibited substances or “*haram*” in the products, animal slaughtering conducted in conforming with the Islamic laws, and no interaction with “*haram*” in every stage of supply chain (General guidelines, 1997).

According to Ruzevicius (2012), the meaning of *halal* certification was extended to cover “*both certifications of product quality and organizational process activities.*” (p.763). That is, a *halal* logo carried the certification of “*company activities, accreditation of certification bodies, the safety and quality of foods and beverages, the quality of cosmetics, perfumeries, personal hygiene products, genuine leather goods, and some other products*” (Ruzevicius, 2012, p. 763).

Benefits of *Halal* Certification

The review of related research indicated the entrepreneurs’ perception regarding benefits they received from *halal* certification mark. McDonald’s in Singapore, for example, stated that the sale volumes significantly increased after the company received the *halal* certificate (Henderson, 2016). Moreover, *halal* certifying label is one major requirement for a firm to export its products to Muslim consumers in both the Muslim or non-Muslim countries. According to a Thai cosmetic entrepreneur, the *halal* label on products exported to Malaysia is basically required before being allowed to sell to the Malaysian customers. In Indonesia, all imported products must secure *halal* certification from MUI (Majelis Ulama Indonesia—the *halal* certifying body of Indonesia), and the granted *halal* label must be placed clearly on the product package (Aree, Minto, Aree, & Usman, 2014).

The benefits of *halal* certification could be summed up as follows:

Commercial benefits: the products carrying a *halal* certified label are supposed to generate more sales volumes, especially from the Muslim customers;

Export benefits: business will have more opportunities to distribute *halal* products to major international marketplaces, particularly to the food-importing Muslim countries.

This benefit will be escalating if the *halal* certification of the original country is accepted by the destination country (Dube, Hongxia, Haijuan, & Lijun, 2016);

Marketing benefits: the *halal* certification helps an entrepreneur to differentiate his/her product to be “*safe, hygienic, and of high quality*” (Rajagopal, Ramanan, Visvanathan, & Satapathy, 2011), and that may generate high consumer trust and confidence. As a result, the firm may improve its competitiveness, gain more market shares, and develop the ability to flourish despite encountering with domestic and international fierce competitors (Abdul, Ismail, Mustapha, & Kusuma, 2013).

In addition to the aforesaid benefits, the entrepreneurs also expected that, once getting the *halal* certificates, they would receive extensive supports from the in-charge government and private-sector agencies in accordance with the designated national export promotion policy, regarding low-interest loans, training and workshops, or an opportunity to join the *halal* product exhibitions for exportation. They additionally expected to reap the benefits out of the government’s support infrastructure regarding the provision of diverse services and resources to the entrepreneurs, ranging from network formation, business partner matching, and marketing services (Dube, Haijuan, & Lijun, 2016).

This research article, therefore, aims at exploring the benefits of *halal* certification mark as perceived by Thai entrepreneurs, focusing particularly on their expectation prior to, and actual benefits after, receiving the *halal* certificates. Since only approximately 10% of Thai entrepreneurs have secured for *halal* certification mark (Yolao, 2015), the findings of this research may shed lights on the possible approach needed to implement to encourage more entrepreneurs to apply for *halal* certificates.

Objectives of the Study

- To study Thai entrepreneurs’ perception regarding the expected benefits prior to receiving the *halal* certificates,
- To investigate Thai entrepreneurs’ perception regarding the actual benefits after receiving the *halal* certificates,
- To compare Thai entrepreneurs’ expected and actual benefits of *halal* certificates

LITERATURE REVIEW

Halal certification has currently been considered as a quality measure for a number of products and services. Food and beverages, together with food-related premises, is the first and foremost product that is required by Islamic laws to go through the *halal* certification process and approval, since it basically involves the daily consumption of Muslims. At present, an increasing number of non-Muslim consumers are paying more attention to *halal* foods, due to the fact that they are prepared in accordance with food safety and quality standards, with a particular concern on hygiene and animal welfare (Ruzeviciute & Ruzevicius, 2011). The *halal* regulations are actually in accord with other global food safety measures, e.g., GMP, GHP, HACCP, and ISO 9001 (Ruzevicius, 2012).

Halal certification has currently been extended to also cover the pharmaceuticals, cosmetics, and personal care products. Certain Islamic countries, e.g., Malaysia and Brunei, have stated the guidelines for *halal* certification process for other non-food products (Jabatan Kemajuan Islam Malaysia (JAKIM), 2015). Interest of both Muslim and non-Muslim customers in *halal* pharmaceuticals, cosmetics, and personal care products have continually risen due to the fact that they are made of natural & non-toxic substances, with no animal testing, alcohol, nor pork-related additions (Rajagopal, Ramanan, Visvanathan, & Satapathy, 2011)

Halal tourism is another promising business, with the phenomenon of a lot of Muslim tourists from the Middle-east countries travelling to the destination countries around the world (Khasuwan & Komolsevin, 2014). It basically concerns the tourism management that responds to the Islamic rules and regulations, covering a lot of businesses such as hotels, transportations, restaurants, entertainments, and leisure activities (Razzaq, Hall, & Prayag, 2016). At present, both Islamic (e.g. Malaysia) and non-Islamic (e.g. Thailand, Singapore) countries have been offering “*Muslim-friendly*” tourism to the Middle-east tourists, focusing on the *halal* services and accommodations. New Zealand, for example, projected herself as a ‘*destination*’ for Muslim tourists due to her strategic focus on promoting tourism with the tourists from the Middle-east region (Razzaq, Hall, & Prayag, 2016).

The above literature serves as clear evidence that *halal* certification of products and services has been a major interest among various countries, be they Islamic or not. Since a high benefit was expected to arise out of the *halal* industry, Thai government has continually encouraged the entrepreneurs to apply for the *halal* certificates. In Thailand, the authority to issue the *halal* certificates and label belongs exclusively to the Central Islamic Committee of Thailand (CICOT), which has been playing a role of auditing, inspecting, monitoring, approving the activities and working processes, and granting the certificate to the applying business once perceived that it has performed in accordance with the *halal* requirements (CICOT, 2016).

When applying for *halal* certification mark, the entrepreneurs certainly develop a kind of expectation regarding the benefits they would receive from the *halal* certificates. According to Jacobsen, Snyder, and Saultz (2014), expectation is the product of acquired excellent services, and goals the entrepreneurs expect the institution to complete. If the achieved goals exceed the expectation, satisfaction will definitely occur, and vice versa. In other words, the entrepreneurs will be satisfied if the actual benefits meet their expectations. Otherwise, once they perceive that they did not receive the benefits as previously expected, they would be surely dissatisfied, and might develop a negative perception towards the *halal* application process and certification, the religious bodies, and the related government and private agencies.

This research, therefore, aims at exploring Thai entrepreneurs’ perception regarding the benefits they expected prior to getting the *halal* certificates in comparison with their perceived actual benefit. The benefits in this research concerned four major areas; namely commercial benefits (higher sales volumes and profits, and attraction to domestic & international business partners), export benefits (more exporting opportunities), marketing benefits (more Muslim and non-Muslim customers, acceptance of product quality), and sup-

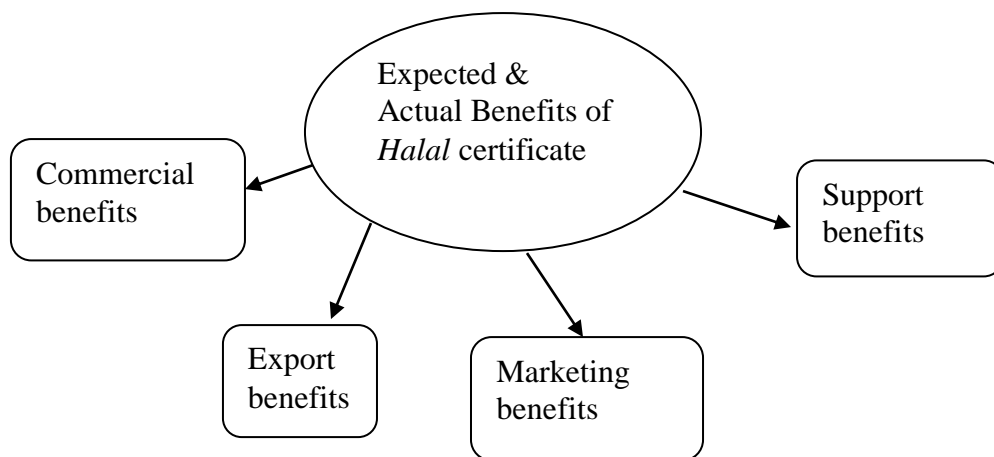
port benefits (general support from state and private sectors, opportunity to join domestic & international product exhibitions).

Research Questions:

What is Thai entrepreneurs' perception regarding the expected benefits prior to, and the actual benefits after, receiving the *halal* certificates?

How different is Thai entrepreneurs' perceptions regarding the benefits of *halal* certificates before and after obtaining the certificates?

Figure 1. Conceptual Model



METHODOLOGY

A survey was conducted using a questionnaire as a research tool. The population was comprised of Thai entrepreneurs who received *halal* certificates, and operated their business in the following five categories: food and food-related products; beverages; cosmetics, pharmaceuticals, and herbal products; restaurants; and spa products, tourism, hotels, and hospitals. The sample size of 500 subjects was calculated using G*Power 3.1, to equally represent each group of 100 subjects. The entrepreneurs were selected purposively and voluntarily from those who indicated their willingness to participate in this research. Those who qualified to complete the survey were the entrepreneurs themselves or their authorized representatives (e.g. manager).

Instrument

The questionnaire was designed in accordance with related literature to capture information corresponding to the stated objectives, and consisted questions asking about the subjects' personal and business information, together with their perception regarding the expected and actual benefits of *halal* certificates. The said perception was measured using the 7-point Likert scale, ranging from 1=least benefit to 7=highest benefit. The questionnaire was also tested for validity and reliability, and each item receiving the IOC value higher than .50, together with the .889 Cronbach's alpha coefficient. The said values signified that the questionnaire was valid and highly reliable.

Data Collection & Analysis

The researchers and assistants distributed the questionnaires directly to the selected 500 entrepreneurs at their business location, and gathered information via self-administrative methods or personal interviews. Those who were out of physical reach were contacted via e-mail or postage mail, and were requested to send back their completed questionnaires. The total of 414 questionnaires or 82.8% response rate was received. The subjects were categorized as following:

Business categories	Frequency	Percentage
1. food & food-related products	128	30.9
2. restaurants	107	25.8
3. cosmetics, pharmaceuticals, and herbal products	82	19.8
4. spa products, tourism, hotels, and hospitals	57	13.8
5. beverages	40	9.7
Total	414	100.0

The data were later analyzed using the frequency to investigate the entrepreneurs' personal and business information, and using mean values and standard deviation to study the entrepreneurs' perception regarding the expected and actual benefits of *halal* certificates. The mean values were interpreted from the least to highest benefit (1.00-1.50 = least, 1.51-2.50 = less, 2.51-3.50 = relatively less, 3.51-4.50 = moderate, 4.51-5.50 = relatively high, 5.51-6.50 = high, and 6.51-7.00 = highest). Finally, a paired t-test was conducted to compare the actual benefits perceived by the entrepreneurs after being granted the *halal* certificates, and their perceived expectation prior to applying for the certificates.

RESULTS

The subjects consisted of 58% of females and 42% males, aging between 31-40 years (40.6%), 41-50 years old (21.3%), and lower than 30 years old (20.5%). One thirds comprised the entrepreneurs themselves (31.2%), while the rest (62.5%) were business representatives.

As for the business information, it was revealed that the subjects were in food and food-related business (30.9%), followed by restaurants (25.8%), spa products, tourism, hotel, and hospitals (19.8%), cosmetics, pharmaceuticals, and herbal products (13.8%), and beverages (8.5%), respectively. A bit over half of the entrepreneurs (54.2%) got the *halal* certificates since 2008 (Table 1).

Table 1.

General & Business Information of Entrepreneurs			
Variable		Frequency	Percentage
Gender (n=414)	Male	166	40.1
	Female	242	58.5
	Not identified	6	1.4
Age (n=414)	Less than 30 years	85	20.5
	31-40 years	168	40.6
	41-50 years	88	21.3
	51-60 years	61	14.7
	More than 60 years	6	1.4
	Not identified	6	1.4
Job position (n=414)	Representatives	137	33.1
	Entrepreneurs	129	31.2
	Not identified	26	6.3
Business type (n=414)	food and food-related	128	30.9
	restaurants	107	25.8
	spa products, tourism,	82	19.8
	hotel, and hospitals		
	cosmetics, pharmaceuti- cals, and herbal products	57	13.8
	beverages	35	8.5
	Not identified	5	1.2
Year of being halal certified (n=414)	1987-1996	5	1.2
	1997-2002	32	7.7
	2003-2007	89	21.5
	2008-2012	100	24.2
	2013-2016	124	30.0
	Not identified	64	15.5

Paired t-test analysis revealed that the actual benefits of *halal* certificates were significantly lower than the expected one regarding the commercial benefits, export benefit, and support benefits. As for the marketing benefits, the entrepreneurs identified the significantly lower actual benefits in two aspects (getting more Muslim and non-Muslim customers), except for the product quality acceptance which indicated no significant difference before and after receiving the *halal* certificates. Averagely, the perceived expected benefits were ranked at the high level (mean=5.73), while the perceived actual benefits were merely rated as relatively high (mean=5.02) (Table 2).

Table 2.

Comparisons of the Entrepreneurs' Perception of Actual and Expected Benefits of Halal Certificates

Perceived Expected Benefits	Mean (SD)	Mean (SD)	Perceived Actual Benefits	t-Value
Marketing Benefits				
Your business would have more Muslim customers	5.89 (1.00)	5.50 (1.18)	Your business got more Muslim customers	5.075***
Your business would have more non-Muslim customers	5.60 (1.10)	4.56 (1.42)	Your business got more non-Muslim customers	13.541***
Customers would accept your product quality	6.03 (1.04)	5.94 (.89)	Customers accepted your product quality	1.586
Commercial Benefits				
Your business would have higher sales volumes in general	5.80 (.96)	5.41 (.91)	Your business got higher sales volumes in general	8.105***
Your business would have higher profits	5.83 (1.06)	5.37 (.97)	Your business got higher profits	7.593***
Your business would attract new domestic business partners	5.77 (1.09)	5.44 (1.03)	Your business attracted new domestic business partners	4.986***
Your business would attract new international business partners	5.83 (1.14)	5.44 (1.24)	Your business attracted new international business partners	5.535***
Export Benefit				
Your business would get higher exportation opportunity	5.98 (1.38)	4.81 (1.40)	Your business got higher exportation opportunity	18.662***
Support Benefits				
Your business would receive supports from related government agencies	5.44 (1.21)	4.37 (1.28)	Your business received supports from related government agencies	16.146***
Your business would receive supports from related private sectors	5.43 (1.22)	4.39 (1.28)	Your business received supports from related private sectors	14.894***
You would have more opportunities to join domestic product exhibitions	5.63 (1.15)	4.77 (1.27)	You got more opportunities to join domestic product exhibitions	13.573***
You would have more opportunities to join international product exhibitions	5.66 (1.23)	4.34 (1.43)	You got more opportunities to join international product exhibitions	18.828***
Total average	5.73 (.76)	5.02 (.73)	Total average	19.739***

Notes. *** = significant $\leq .001$.

DISCUSSION

To conclude, the entrepreneurs indicated that, after receiving the *halal* certificates, they could not generate high benefits as previously expected. This might be due to the fact that carrying the *halal* certificate mark is not specifically required in Thailand, in which the majority of population is not Muslim. Hence, the *halal* certificate is not the non-Muslim customers' first priority when making a purchase. Besides, as for the Muslim customers, they would purchase mostly from a Muslim seller, no matter whether he/she carried the *halal* certificate or not. A *halal* certification mark is required only when they have to buy from a non-Muslim vendor. As one Muslim buyer exclaimed, "*we buy from the Muslim out of trust; being a Muslim is enough, no need to show the halal label*" (Personal interview, May, 2015).

In addition, the *halal* certificates may not benefit the small and medium firms whose products were generally targeted at the lower-level mass market. Therefore, we might assume that, in the mass markets, a *halal* certificate may not be an added value to the product. On the contrary, the *halal* certificates is required as a standard label for the firms which aim at distributing their products in hypermarkets, exporting them to Islamic countries, or selling them to the Muslim tourists.

In order to encourage more application for *halal* certification mark, a list of vivid benefits should be singled out by all parties concerned. As for the government, the financial and technological supports for the entrepreneurs should be stated clearly. In Malaysia, for example, the firms located in the *halal* industry hub in Penang would receive an infrastructure support in terms of R&D, trainings, logistics, income tax exemption for 5 years, as well as receiving the pre-assessment and coaching from the supportive authority to facilitate the *halal* application process (Dube, HaiJuan, & Lijun, 2016; and Dube, Hongxia, HaiJuan, & Lijun, 2016).

The religious certifying body should also be active in providing the concrete benefits to *halal*-certified businesses. That is, CICOT and/or the Provincial Islamic Council may act as a mediator to help form a trade network via formal and informal contacts between/among the entrepreneurs of the same business category. The said business network will definitely provide benefits to the entrepreneurs, since they may get additional exposures to extensive trade information and opportunity for their products and services.

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**A FRAMEWORK FOR IDENTIFYING BARRIERS TO
IMPLEMENT COLD CHAIN MANAGEMENT IN
CHINESE VEGETABLE EXPORT INDUSTRY**

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ABSTRACT

Nowadays, Chinese vegetable export trade has an impact on growth of economy in the country. However, a large amount of vegetable lost each year in export industry. An efficient Cold Chain Management (CCM) is one of domineering principles to reduce vegetable post-harvest losses. It is extremely difficult to execute CCM in China, due to numerous barriers and limited resources. Therefore, this paper aims to examine the multiple effects of inter-relationships among known barriers and to identify the critical barriers to implement CCM by using fuzzy Decision Making Trial and Evaluation Laboratory (DEMATEL). DEMATEL is a potent multiple criteria decision-making tool. It enables to quantitative extract inter-relationships among factors and to provide a visualized structure of a cause-effect diagram depending upon their influence intensity. To deal with human vague judgment under many uncertain circumstances, fuzzy logic is extended with DEMATEL technique. A numerical example is applied to illustrate identification of barriers. The numerical example used in this study revealed that lack of government support, lack of top level commitment, customer's unawareness towards CCM product and poor infrastructure are critical barriers to implement CCM. The result of the study can offer valuable references for decision makers to remove barriers more purposefully and efficiently.

KEY WORDS: Framework, barriers, fuzzy logic, DEMATEL, Cold Chain Management, vegetable export industry

INTRODUCTION

China is an important exporter of vegetable in the world. The development of vegetable export industry has contributed to the area's economic health, as it is helpful to solve the unemployment problem, economic growth, and higher living standard of people. However, this industry still suffers with high post-harvest loss rang 25%-30%, some varieties are up to 40% while the losses in developed countries only rang from 5%-15% (Madrid, 2011). The issue of post-harvest loss could directly cause lower or lost value for sale. Besides it could cause the lower of export performance of company. Faced with fierce market

competition, Chinese vegetable export industry needs to execute a new competitive management mode to reduce the high post-harvest losses and improve export performance. In this context, an efficient Cold Chain Management (CCM) is one of domineering principles to achieve goals above because of its potential to maintain best possible quality of vegetable (FAO, 2015). CCM is a term that is specifically used in context of a variety of food, pharmaceutical industry and chemical industry, which is a special supply chain management mode to maintain stable temperature for perishable products. CCM has been widely used in export industries in developed countries as a crucial investment tool to prevent perishable food losses and to substantially expand export profits.

Despite the significant benefits and the increasing recognition of the importance of CCM, it is extremely difficult to implement CCM in Chinese vegetable export industry due to numerous barriers. Identifying existing barriers is the fundamental task which needs to complete in order to achieve an efficient CCM. Then, manager can cultivate strategies accordingly to address them efficiently. The previous literatures show that many variables can act as barriers influencing the implementation of CCM. In most of actual cases, it is not always capable to eliminate all the barriers in a organization simultaneously, due to constraints in human beings' resource, time and capability (Dos Muchangos, Tokai, & Hanashima, 2015). A more feasible method is to just focus on some critical barriers which have most influences on other barriers and system and to address them first (Q. Zhou, Huang, & Zhang, 2011), so the strategies of eliminating of barriers would be more purposefully and effectively. Also, after reviewing the previous literature, it is clear that there is few empirical research on CCM in context of Chinese vegetable export industry. Based on the above points, the identification and prioritization of the barriers that hinder the implementation of CCM in Chinese vegetable export industry are required.

Barriers in a system are often interrelated, and a barrier may trigger another one or influenced by another (Dos Muchangos et al., 2015). Moreover, each barrier has different influences of intensity to the network, which increases the complexity to analysis. Therefore, studying the inter-relationships among barriers can help identify the critical barriers. Few studies and methods have the capability of demonstrating the inter-relationships among the barriers of implementation of CCM from the extant literatures. Decision Making Trial and Evaluation Laboratory (DEMATEL) is one of the useful methods that support taking inter-relationships into account among criteria and enable to identify the major problem (Bhanot, Rao, & Deshmukh, 2017). Further, to deal with the vague judgement of human beings under the uncertain circumstances, fuzzy logic is incorporated into DEMATEL, namely, fuzzy DEMATEL, which is applied to help address the problem in this study.

This paper aims to develop an efficient framework for identifying barriers to the implementation of CCM in Chinese vegetable export industry. The rest of this paper is organized into following sections. In section 2, the related works on vegetable export industry and CCM are reviewed. In section 3, the framework of methodology of this research is introduced. In section 4, a numerical example is applied to illustrate the result. In section 5, the result is discussed. Finally, the conclusion and the limitation of this paper would be drawn.

LITERATURE REVIEW

Vegetable Export Industry

Vegetable export industry is thriving since 21st century with expansion of transnational companies and vegetable importers are expanding operations to meet new consumer demand. Due to the internal high moisture content and respiration of vegetable, it is easy to cause high losses after harvest (Kumar, Basavaraja, & Mahajanshetti, 2006). Even though vegetable exports have a relatively high value, many studies have shown high rates of loss in export trade. For instance, in Lao PRD cabbage postharvest loss was estimated about 52.5% in the export trade (Thongsavath, Varit, Thananya, Sirichai & Antonio, 2012) and the losses of vegetable and fruit of Indonesian export trade was estimated about 28% (Marijn, 2015). The losses of vegetable in export trade in turn can lead to a series of negative impacts, including lower of export performance, lower customers satisfaction degree, increase proportion in food waste, as well as increase environmental pollution pressure. In generally, although vegetable has a lower loss rate in export supply chain than those sale in domestic market due to more modern management, the losses in this industry still huge. Losses of vegetable can occur at any stage of the export supply chain thus a proper post-harvest management is required (Gustavsson, Cederberg, Sonesson, Otterdijk & Meybeck, 2011). Due to the low level of post-harvest management in many developing countries, reducing vegetable in vegetable export industry is still a serious challenge.

Cold Chain Management

The term ‘CCM’ is specifically used in context of a variety of food, pharmaceutical industry and chemical industry. CCM is “the process of implementing effective flow and storage of perishable goods, and information from one or more points of origin to the points of production, distribution and consumption in order to meet customers’ demand” (Bogataj, Bogataj, & Vodopivec, 2005). As a part of modern post-harvest management measure, CCM cannot only contribute to reducing high postharvest losses but also help to substantially boost export to profits (Jat, 2010). Despite the widespread awareness on the need for an efficient CCM in organizations, the implementation is still at a low level in many developing countries in practice. Compared with domestic vegetable trade, the export trade of vegetable often involves long journey and frequent handling operations, which makes effective CCM more difficult.

Barriers for the CCM Implementation

Quite a few studies have been conducted to explore the barriers to implement CCM in recent years. High cost along with poor cold chain infrastructure and limited support from government were often the bottlenecks for a strong cold chain (Jat, 2010; Bharti, 2014). Besides, inadequate temperature monitoring was also the key issue limiting cold chain performance (Ashok, Brison & LeTallec, 2017). Lack of implementing standard, lack of latest technology and lack of holistic integrated planning were identified as the main barriers that hinder the development of CCM in transport link and storage (FAO, 2015). Last but not least, lack of capacity in maintenance and the management of cold chain facilities were also the essential barriers to implement CCM in quite a few low-income countries (Ashok et al., 2017). In summary, most of existing relevant literature in this field are focusing on the qualitative analysis. Up to now, the number of the paper that aims at studying the char-

acteristics of the barriers to implement CCM from with integrate quantitative and qualitative method is very limited.

DEMATEL Model

DEMATEL model is a potent multiple criteria decision-making (MCDM) tool, which is based on combination of graph theory and matrix form (Vafadarnikjoo, Mobin, & Firouzabadi, 2016). DEMATEL identifies the main problem through identifying the internal causal relationship among the criteria. The main functions of DEMATEL include: ranking factors, clarifying problem's factors, and identifying the main problem in complex system.

DEMATEL is beneficial in some ways. Firstly, DEMATEL does not only allow considering the interdependence among the factors of a system through a causal diagram but also a broader discrimination of measures. Secondly, it does not need large amounts of data Due to the significant advantages of DEMATEL, it has been extensively accepted as one of the best tool to in many management fields, such as information technology management, project management, strategy management (M. Mehregan et al., 2012), sustainable management (Wu, Zheng, & Wu, 2013) and supply chain management (Anand et al., 2014) etc. Specially, Amiri, Sadaghiyani, Payani and Shafieezadeh (2011) applied DEMATEL to select location of distribution center in supply chain of oil company. Li et al., (2012) utilized DEMATEL to identify the key barriers which hinder the urban sustainable development. Furthermore, DEMATEL were utilized to recognize the influential criteria of carbon management in green supply chain (Hsu et al., 2013), to identify the key barriers for the Green Supply Chain Management (GSCM) implementation in the packing industry (Wang, Mathiyazhagan, Xu & Diabat, 2016) and to evaluate factors in implementation of successful GSCM (Gandhi & Magla, 2015). An empirical case study of an Indian manufacturing company was conducted to show the real-life applicability of DEMATEL in Ganghi and Magla' study. Besides, DEMATEL was also applied to analyze barriers to implement industry symbiosis networks in industrial park context (Bacudio et al., 2016) and to evaluate the performance of retail chain in Turkey (Ozcan & Tuysuz, 2016) etc. The specific steps involving in applying the DEMATEL method are discussed as follows.

Step 1: Set up direct-relation matrix. There are H experts and n factors to be considered. For now a_{ij} donates pairwise comparisons between any two factors. For respondent k, the form of the matrix is shown in (1)

$$A_k = \begin{bmatrix} 0 & a_{12} & a_{13} & \cdots & a_{1n} \\ a_{21} & 0 & a_{23} & \cdots & a_{2n} \\ \vdots & 0 & \vdots & \cdots & \vdots \\ a_{n1} & a_{n2} & a_{n3} & \cdots & 0 \end{bmatrix} \quad (1)$$

Step 2: Find the average matrix A:

$$[a_{ij}]_{n \times n} = \frac{1}{H} \sum_{K=1}^H [X_{ij}]_{n \times n} \quad (2)$$

Step 3: Obtain normalize the initial direct-relation matrix:

$$S = \frac{1}{\max_{1 \leq i \leq n} \sum_{j=1}^n a_{ij}} \quad (3)$$

$$D = A \times S \quad (4)$$

Step 4: Calculate the total relation matrix T:

$$T = D(I - D)^{-1} \quad (5)$$

I: Identity matrix

Step 5: Calculate the sum of rows r_i and column s_j :

$$[r_i]_{1 \times n} = (\sum_{j=1}^n t_{ij})_{n \times 1} \quad (6)$$

$$[s_j]_{1 \times n} = (\sum_{i=1}^n t_{ij})_{1 \times n} \quad (7)$$

r_i denotes the total effects given by factors i to other factors and s_j denotes total effects received by factor j from other factors. The sum $(r_i + s_j)$ proves the degree of importance role of factor i in the system. $(r_i - s_j)$ proves the net effect that factor i donates to the system.

Step6 : Construct cause-effect diagram: $(r_i + s_i, r_i - s_i)$ is used as horizontal axis and vertical axis respectively. If $(r_i - s_j)$ is positive, it falls in cause group. If $(r_i - s_j)$ is negative, it falls in effect group.

Fuzzy Logic

Fuzzy logic theory was developed based on the concept of membership function to take linguistic variables into consideration. It can measure ambiguous concepts associate with human's linguistic judgment. Fuzzy logic theory is necessary for handling problems due to the fact that in the real world, the linguistic evaluations given by human are always unclear and difficult to estimate by exact numerical value. Many studies have proven it can contribute to overcome the limitation of MCDM under uncertain circumstances and make the research result close to human thought patterns. Reviewing the methods among previous studies, many decision-making methods used to evaluate a system and criteria with terms that were modeled with fuzzy sets. Plenty of hybrid methods which combine with fuzzy sets have been widely explored to assist decision-making processes, for instance ,select suppliers by using fuzz AHP (Kilincici & Onal, 2011),identify the SCM enablers through ISM-fuzzy MICMAC, handle multi-criteria decision making problems by using fuzzy ELECTRE (Chen & Xu, 2015) , etc.

Because fuzzy number is not suitable for matrix operations, fuzzy aggregation processes must including a defuzzification step, which refers to a process of converting fuzzy num-

bers into crisp scores (CFCS). Triangular fuzzy number (TFNs) is a common method used for defuzzification. $z_{ij}^k = (l_{ij}^k, m_{ij}^k, r_{ij}^k)$ denotes the fuzzy evaluation of evaluator k ($k=1,2,3,\dots,H$) about the degree to which the factor i affects the factor j. The application of TFNs includes the following 5 steps:

Step 1: Standardize the fuzzy numbers

$$xl_{ij}^k = (l_{ij}^k - \min l_{ij}^k) / \Delta_{\min}^{\max} \quad (8)$$

$$xm_{ij}^k = (m_{ij}^k - \min l_{ij}^k) / \Delta_{\min}^{\max} \quad (9)$$

$$xr_{ij}^k = (r_{ij}^k - \min l_{ij}^k) / \Delta_{\min}^{\max} \quad (10)$$

Step 2: Calculate the left and right normalized value

$$xls_{ij}^k = xm_{ij}^k \div (1 + xm_{ij}^k - xl_{ij}^k) \quad (11)$$

$$xrs_{ij}^k = xr_{ij}^k \div (1 + xr_{ij}^k - xm_{ij}^k) \quad (12)$$

Step 3: Compute the total normalized value

$$x_{ij}^k = [xls_{ij}^k(1 - xls_{ij}^k) + xrs_{ij}^k \times xrs_{ij}^k] \div (1 + xrs_{ij}^k - xls_{ij}^k) \quad (13)$$

Step 4: Obtain the crisp score of the k expert's evaluation

$$BNP_{ij}^k = \min l_{ij}^k + x_{ij}^k \Delta_{\min}^{\max} \quad (14)$$

Step 5: Get integrated scores by averaging the crisp scores of all H the evaluation

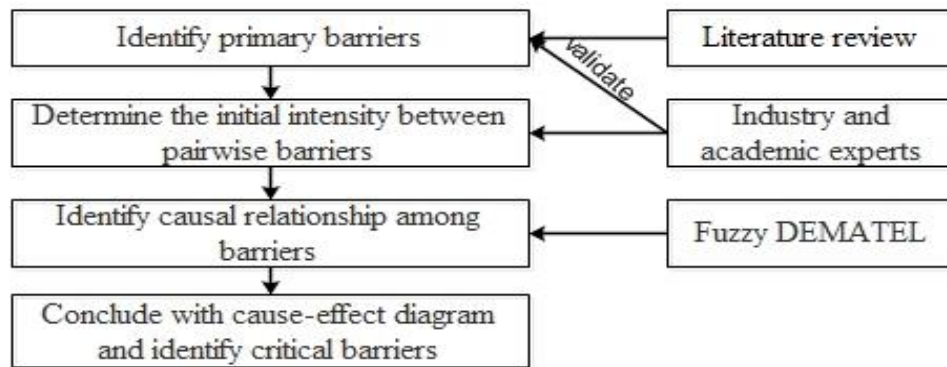
$$a_{ij} = \frac{1}{K} \sum_{k=1}^K BNP_{ij}^k \quad (15)$$

BNP: Best Non-fuzzy Performance

METHODOLOGY

This research comprises 5 steps. The proposed framework of methodology of this research is represented briefly (Fig.1) .

Figure 1. Proposed Methodology Framework of the Research



Step 1: Review the relevant literature and identify primary barriers for implementing CCM from the published literature. A series of searches are carried out on electronics academic databases in order to broadly search papers, articles and reports. The following selection inclusion criteria are used to choose articles in analysis: (a) The articles contain specific keywords “Cold Chain Management” “Challenge in cold chain” “Challenge” “Barrier to implement Cold Chain Management” and “Barriers of cold chain logistics” or articles’ title includes one of these compound terms. (b) The literature search is limited to sources published in the last 10 years.

Step 2: Validate the barriers for implementing CCM based on the opinions of industrial and academic experts through questionnaire survey. The selected respondents are asked to choose or add any barriers relevant to implementation of CCM in the context of Chinese vegetable export industry.

Step 3: Determine the initial intensity between pairwise barriers on the basis of experts’ opinions. The experts are asked to conduct a pairwise comparison between the validated barrier. Relations between pairwise barriers can be expressed as 5 scales of linguistic terms: no influence , very low influence , low influence , high influence and very high influence .

Step 4: Identify causal relationships among the barriers through fuzzy DEMATEL model. Firstly, the matrixes obtained from last step are converted into TFNs set, and then TFNs will be defuzzified into the crisp scores and get integrated scores through CFCS. Once get the integrated scores, the initial direct-relation matrix is input to DEMATEL model equations. In the process of calculation, MATLAB (Matrix Laboratory) software is explored to calculate the related matrixes. From the total-relation matrix, the causal relationships among the barriers are acquired.

Step 5: Conclude with cause-effect diagram and identify critical barriers. The barriers which have most effects on other barriers are regarded as the critical barriers and should be focused.

NUMERICAL EXAMPLE

In this section, a numerical example is applied to illustrate identification of barriers through the proposed method. First of all, barriers have been identified as shown in table 1.

Table 1.

A List of 15 Identified Barriers to Implement CCM

Code	Barriers	References
B1	Lack of awareness of use IT	Sheng & Wang(2014); Negi & Anand(2015)
B2	Lack of coordination between stakeholders	FAO(2015); Mercier et al.,(2017)
B3	High capital cost and operating cost	Jat(2010); Lan&Tian(2013); Miller(2016)
B4	Lack of top level commitment	Gorane & Kant(2015); Parmar & Shah(2016)
B5	Lack of traceability system	Ciasullo et al.,(2015); Qu(2015)
B6	Lack of implementing standard	Bharti(2014); FAO(2015); Yan(2015)
B7	Manager's limited awareness on CCM concept	Joshi et al.,(2009); Liu et al., (2016)
B8	Customer's unawareness towards CCM products	Ovca & Jevsnik(2009); Joshi, Banwet, & Shankar(2010)
B9	Lack of government support	Bharti(2014); FAO(2015); Liu et al(2016)
B10	Poor cold chain infrastructure	Jat (2010) ;Liu et.al(2016); Miller(2016)
B11	Disbelief about benefits of CCM	Lan & Tian(2013)
B12	Lack of information	FAO(2015); Liu et al., (2016)
B13	Lack of capacity in maintenance	Bharti(2014); FAO(2015)
B14	Limit from regulations	Bharti(2014); Zhou & Zhang(2013)
B15	Lack of trained personnel	Jat (2010); Miller(2016)

The initial intensity of influence between each pairwise of barrier is assigned with the help of selected experts. There will generate the different corresponding direct-relation matrixes after getting the assessments from experts. An example of the determination direct-relation matrix is shown in table 2.

Table 2.

An Example of the determination Direct- Relation Matrix A

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B1	B1	B1	B1	B1	B1
	B1	B2	B3	B4	B5	B6	B7	B8	B9	0	1	2	3	4	5
B1	-	L	o	No	H	o	No	o	L	No	VL	H	H	No	No
B2	L	-	o	L	L	o	L	o	No	No	VL	VH	No	No	No
...
B1	V	N	N	V	N			N							
4	L	o	o	L	o	H	No	o	No	No	VL	VL	No	-	No
B1				V		N		N							
5	H	H	L	L	L	o	L	o	No	No	L	No	L	No	-

Design the fuzzy linguistic variables as shown in table 3. Transform direct-relation matrixes into TFNs afterwards. For example, “L” is transformed as (0.25, 0.5, 0.75), “No” is transformed as (0, 0, 0.25). Next, use Eqs. (8)-(14) to develop a crisp value direct-relation matrix for the assessment of each expert, and then use Eq. (15) to average the crisp value of assessments gained from all the experts. Then normalization is conducted through Eqs.(3)-(4). An example of normalized direct-relation matrix B is shown in table 4.

Table 3.

The Linguistic Variables and Corresponding TFNs

Linguistic variables	Corresponding TFNs
No influence	(0,0,0.25)
Very Low influence	(0,0.25,0.5)
Low influence	(0.25,0.5,0.75)
High influence	(0.5,0.75,1.0)
Very High influence	(0.75,1.0,1.0)

Table 4.

An Example of the Normalized Direct-Relation Matrix B

	B1	B2	...	B14	B15
B1	0.00	0.5	...	0.03	0.16
B2	0.03	0.00	...	0.03	0.04
⋮	⋮	⋮	⋮	⋮	⋮
B14	0.04	0.03	...	0.00	0.05
B15	0.10	0.07	...	0.03	0.00

Table 5 represents a total-relation matrix C which is acquired from Eq. (5). After that the scores of prominence ($r_i + s_j$) and relation ($r_i - s_j$) are acquired through Eqs. (6)- (7) as shown in table 6. Last, a cause-effect diagram is constructed by mapping the dataset of ($r_i + s_j, r_i - s_j$), which is shown in figure 2.

Table 5.

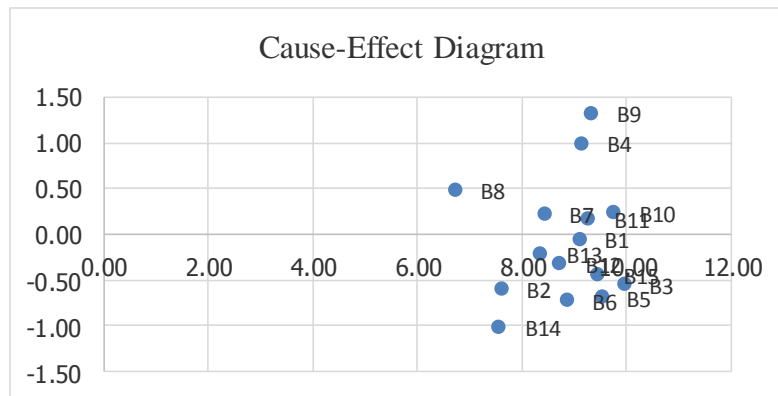
Total-Relation Matrix C

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14	B15	ri
B1	0.32	0.29	0.34	0.27	0.40	0.34	0.28	0.21	0.28	0.26	0.34	0.36	0.34	0.23	0.45	4.70
B2	0.26	0.18	0.22	0.23	0.27	0.27	0.24	0.19	0.21	0.25	0.25	0.27	0.23	0.18	0.26	3.52
B3	0.39	0.31	0.29	0.32	0.41	0.34	0.32	0.24	0.32	0.40	0.25	0.27	0.23	0.18	0.26	4.53
B4	0.43	0.33	0.34	0.26	0.40	0.37	0.33	0.24	0.31	0.38	0.36	0.34	0.34	0.26	0.40	5.08
B5	0.36	0.27	0.32	0.28	0.28	0.33	0.29	0.21	0.26	0.35	0.31	0.33	0.30	0.22	0.33	4.42
B6	0.34	0.27	0.27	0.23	0.33	0.24	0.24	0.19	0.26	0.32	0.28	0.28	0.29	0.22	0.32	4.08
B7	0.36	0.28	0.31	0.29	0.36	0.29	0.23	0.20	0.26	0.31	0.33	0.30	0.27	0.20	0.35	4.33
B8	0.28	0.23	0.24	0.24	0.28	0.26	0.25	0.14	0.21	0.26	0.28	0.27	0.23	0.18	0.26	3.61
B9	0.42	0.33	0.36	0.34	0.38	0.42	0.31	0.25	0.27	0.41	0.36	0.37	0.40	0.29	0.41	5.33
B10	0.40	0.30	0.37	0.31	0.40	0.37	0.30	0.23	0.32	0.31	0.35	0.37	0.33	0.25	0.38	4.99
B11	0.40	0.30	0.37	0.31	0.40	0.37	0.30	0.23	0.32	0.31	0.26	0.28	0.30	0.22	0.34	4.72
B12	0.34	0.28	0.28	0.25	0.31	0.30	0.26	0.23	0.27	0.32	0.31	0.24	0.27	0.23	0.32	4.20
B13	0.30	0.24	0.31	0.28	0.33	0.30	0.24	0.19	0.26	0.32	0.30	0.28	0.23	0.20	0.31	4.08
B14	0.26	0.20	0.23	0.21	0.23	0.27	0.20	0.17	0.19	0.24	0.23	0.25	0.21	0.14	0.26	3.28
B15	0.39	0.30	0.32	0.27	0.35	0.32	0.31	0.22	0.27	0.32	0.32	0.31	0.30	0.22	0.29	4.50
sj	5.25	4.10	4.58	4.08	5.11	4.79	4.10	3.13	4.01	4.75	4.54	4.51	4.28	4.28	4.94	

Table 6.

The Scores of Prominence and Relation

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14	B15
r_i	4.70	3.52	4.53	5.08	4.42	4.08	4.33	3.61	5.33	4.99	4.72	4.20	4.08	3.28	4.50
s_j	5.25	4.10	4.58	4.08	5.11	4.79	4.10	3.13	4.01	4.75	4.54	4.51	4.28	4.28	4.94
$r_i + s_j$	9.95	7.62	9.11	9.15	9.52	8.87	8.43	6.74	9.34	9.75	9.27	8.72	8.36	7.57	9.44
$r_i - s_j$	-0.55	-0.58	-0.05	1.00	-0.69	-0.71	0.23	0.48	1.32	0.24	0.18	-0.31	-0.21	-1.00	-0.43

Figure 2. The Cause-Effect Diagram of Barriers

RESULTS AND DISCUSSION

Using proposed fuzzy DEMATEL model with a numerical example, a framework has been developed for identifying the barriers for implementing CCM in Chinese vegetable export industry. The cause-effect diagram in figure 2 has provided a overview causal relationship of barriers in the system. In this example, “lack of government support” (B9), “lack of top level commitment” (B4), “customer’s unawareness towards CCM product” (B8) and “poor cold chain infrastructure” are identified as the critical barriers to the implementation of CCM. B(9), B(4) and B(8) all fall in cause group and have a relatively high score of $(r_i - s_j)$:1.32, 1.00 and 0.48 respectively. The high relation scores they got imply that they have many impacts on other barriers. Thus they are defined as the very influential barriers in the system. The prominence score $(r_i + s_j)$ is a measure of the important degree of the barrier in the whole system. Though barriers “manager’s limited awareness on CCM concept” (B7) and “disbelief about benefits of CCM” (B11) fall in cause group, their prominence scores are quite low. Hence, they are not considered as the critical barriers. With respect to barrier “poor cold chain infrastructure” (B10), its prominence score is in the second place among all the barriers and its relation score is relatively high, therefore it is reasonable to define “poor cold chain infrastructure” as one of critical barriers.

Based on the aforementioned discussions, 4 barriers are identified as critical barriers to implement CCM. Variation in them can change system performance greatly. Removal of these barriers will help first in implementing CCM. Decision makers should pay attention to these critical barriers when generating the strategies.

CONCLUSION

The fuzzy DEMATEL model is a powerful multiple criteria decision-making tool to capture the way barriers are relating with each other and their casual relationships under human vague judgement. Moreover, it enables the analysis result’s precision to improve and provides a more valuable reference for decision makers. The highlights of this research can be summarized as follows. First, this research scientifically builds a model of analyzing barriers for implementing CCM and their inter-relationships under vague circumstances. Second, it portrays a visualized structure of the causal relationships of barriers. Third, it is a comprehensive classification and reflection of barriers to understand barrier’s criti-

cality for decision making process. Finally, it is a potential framework that can be explored and used as reference for decision makers to identify barriers.

This paper develops a framework for identifying barriers to implement CCM in vegetable export industry. Fuzzy DEMATEL method was applied to identify and prioritize critical barriers. The numerical example used in this study revealed that “lack of government support”, “lack of top level commitment”, “customer’s unawareness towards CCM product” and “poor cold chain infrastructure” are critical barriers to implement CCM.

However, there are some limitations to this paper. For example, the result in this research was achieved by applying a numerical example and it cannot reflect the real fact precisely. Data should be collected and used in the proposed framework in the future research.

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**K-POP CULTURE:
PORTRAYAL OF MEN IN K-POP CULTURE AND
ITS POTENTIAL INFLUENCES ON
YOUNG THAI FEMALE AUDIENCES IN BANGKOK**

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ABSTRACT

This study aims to investigate how male drama characters have been portrayed in K-Pop culture and how it affects Thai female audiences. A mix method of textual analysis and depth-interview was used to uncover emerging themes from the drama content and audiences' responses. Using snowball sampling, 15 Thai female fans of Korean TV series aged 13-26 years old living in Bangkok were recruited for the depth-interview. The findings reveal that Korean TV series tended to portray male characters as perfect men. The analyses of depth-interview also yield that Thai female audiences are often more attracted to men when they reach puberty. At this point, group decisions are likely to influence their decisions. Once, they become older, their decisions are more heavily based on personal preferences. As expected, male characters' physical appearance is the most important factor that influences the audiences' behavior. However, its significance reduces as they get older.

KEY WORDS: N/A

INTRODUCTION

In the past, many Asian countries were heavily influenced by American culture through globalization (Berger & Huntington, 2002). However, the Western cultural dominance in Asia was weakened since mid 1980s (Hao & Teh, 2004). It was replaced by Japanese culture. Around 1990 to 2000, South Korea had become a new player in exporting her popu-

lar culture into Asia countries (Bahk-Halberg, 2007; Dator & Seo, 2004; Siriyuvasak & Hyunjoon, 2007).

K-pop culture was so well-received that many youths adopted K-pop lifestyles and learn Korean language. This change had become a phenomenon called the 'Hallyu' or Korean Wave. It should be noted that K-pop culture was better assimilated by youths than more mature consumers and by females than males.

Females were the focus of this research as they were considered the biggest audience group, who turned into heavy users of Korean cultural products. Korean TV series were investigated since they had gained huge success in Thailand as cultural products from South Korea. With more and more urban females consumed Korean cultural products; their consumption of Thai cultural products were likely to be negatively affected. With that in mind, it was beneficial to explore the cultural elements in Korean TV series that appealed urban Thai women.

This research focused on how Thai female audiences responded to Korean media, through male characters. Some important elements in this research included character portrayal, cultural values, lifestyles, and self-concept. Character portrayal meant how the male characters were portrayed in terms of their physical appearance, personality, career goal, attitude toward romantic love, and relationship with others. Cultural values included display of similar Asian values such as seniority, male as the head of the family, and parent care-taking. Lastly, lifestyles meant how characters live their lives, such as the use of high-tech products and apparel, grooming, and showing intimacy.

Most of Thai TV series had been criticized as continuously portraying males in unrealistic lights in terms of their family roles, career goal, and their social relations with others. This research intended to investigate cultural portrayal of men in Korean TV series that made them appealing to Thai female audiences. By exploring such portrayal in Korean TV series and why Thai female audiences positively perceived and responded to it, this research would provide Thai media companies with useful information for their future productions. In particular, it was beneficial to identify why Thai urban female audiences preferred consuming Korean entertainment media to Thai entertainment one, or even adopted Korean popular culture and lifestyles when almost all of them did not even understand Korean language or visit South Korea.

In terms of academic significance, most studies of Korean media hardly investigated cultural elements of their media content. This study will fill this gap and add to the knowledge pool of Korean media and popular culture. Organizations dealing with women as their target group may also benefit from this research.

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

K-Pop Culture

Korean popular culture (K-Pop Culture) is a popular culture that belongs to Korea. Popular Culture is defined by Longman Dictionary (2017) as "music, films, products etc in a particular society that are familiar to and popular with most ordinary people in that society." Today, K-pop culture had become one of the most popular cultures adopted by Asian

youths. This was especially true among women (Chua, 2004; Dator & Seo, 2004; Fu & Khiun, 2008; Ho, 2004; Onishi, 2006; Shim, 2006; Siriyuvasak & Hyunjoon, 2007; Xiong & Li, 2007). To the Koreans, culture had become a type of export commodity. Within it, there are TV series, movies, music and even the people.

Korean TV Series and Female Consumers' Needs

Ju (2005) and Metaveevinij (2008) claimed that Korean TV series became a major demand for Asian audiences because Korean TV series were able to answer the audiences' desires. In Korean dramas, the complex relationships surrounding the real world, such as family relationships, friendship and love triangles were included (Ju, 2005). Physical attraction of the actors and actresses and good acting skills also played an important part in capturing female audiences' attentions (Jung, 2009). These ideas could be furthered elaborate through Uses and Gratifications Theory (McQuail, 2010).

Cultural Contexts of Thai Women

According to Tantiwiranond (2007), women in Thai society were given a certain level of freedom in work and life and usually had the most power regarding household matters. Bowman (2008) stated that women in Thailand usually had a certain control over their spending, especially those who belong to the upper class. Thai women become the major target audiences of the mass media (Satiramongkonsuk & Disayawattana Chantrawatanakul, 2004). Many suppliers viewed young females as a major market segment. In Bangkok, females aged over 15 years old who belongs to the households that earn more than 50,000 baht a month were accounted for 20% of the total population (Synovate, 2007). This group had more tendencies to become consumer of Korean cultural products. Females around this age also increasingly attracted to the opposite gender (Chan-ame & Chan-ame, 1977).

Two theoretical frameworks -- Individualism vs. Collectivism and Cultural Theory -- were applied in this research to answer two research questions: (1) How do Korean TV series culturally portray men?, and (2) How do Thai female audiences respond to such portrayal of men in Korean TV series?

Individualism versus Collectivism

Within cultural context, one of the most outstanding differences in terms of cultural dimension between the Oriental and the Western people was *individualism-collectivism*, which was defined by Hofstede (2001) as the relationship between the individual and the collectivity. Husted and Allen (2008) proposed that the individualist viewed personal achievements as more important while the collectivist gave priority on group decisions and norms. More importantly, individualist placed task achievement on top while the collectivist preferred to keep good relationship with others at the expense of task completion. Connection to the family was very common in most collectivist communities (Tamis-LeMonda, Way, Hughes, Yoshikawa, Kalman, & Niwa, 2008). In the past, Thai people were more collectivists but current rapid urbanization causes Bangkok and a few larger city residents were becoming more individualistic (Punnahitanond, 2005).

Cultural Theory

Cultural Theory (Wildavsky 1987, 1989) explained that culture influences human's identity and preferences. The preferences of people affected their consumptions and influences how each individual selected products that would satisfy their needs. This theory could explain how a particular group of audiences selected a certain genre of entertainment that would satisfy their needs.

Using these two theories as theoretical frameworks of this study not only allows the examination of how male characters were portrayed in Korean TV series but also the investigation of how Thai female audiences responded to cultural portrayal of men in terms of individualism and collectivism.

METHODOLOGY

Study Design

A mix method of qualitative approach was used. Firstly, textual analysis of two K-pop TV series was conducted to investigate how men characters were portrayed. The two series were 'You are Beautiful' and 'Dream High'. In addition, depth-interviews of Thai female youths were conducted to examine how these audiences responded to such portrayal of males in the K-pop TV series.

Sample

With the use of snowball sampling, the informants were Thai female audiences who were fan of K-pop series, age between 13 – 26 years old who had watched both series and lived in Bangkok. Categorized into three age groups, informants included secondary school students aged 15-18, university students aged 19-21 and working women aged 22-26. The reason for choosing this age range was that they were more likely to be heavy consumers and were more likely to attract to male characters. Demographic characteristics and K-pop media exposure of the informants are presented in the Appendix A.

Procedure

The depth-interview sessions were carried out by the primary investigator at the location that the interviewees suggested. The interviewees were briefed on the topics that make them feel more comfortable with the interview. They were also informed that their opinions would be used solely for the research purpose.

FINDINGS

To answer the first research question, the textual analysis of two Korean TV series reveals that male characters were portrayed as good looking, caring, rich and successful, especially as leading or supporting characters. Normally, the leading actor was good looking, not caring at first or did not show that he was caring, rich and successful. In contrast, the supporting character was even better looking, always caring, as rich as the main character and very successful. Overall, they were portrayed as a perfect person.

To answer the second research question, the Constant Comparative Method (Strauss & Corbin, 1990) was used to analyze the qualitative data from the depth-interviews. The analyses revealed that the Thai female audiences adored how Korean TV series portrayed men. They wished that they were the leading female character instead. This claim was stronger if the audiences were younger and decreased as the audiences were older.

Emerging Themes

Four main themes were categorized: (1) K-Pop media consumption was based on Cultural Theory, (2) initial exposure to K-Pop used Collectivism and Individualism as a guideline, (3) male characters' characteristics in Korean TV series derived from textual analysis data, and (4) Uses and Gratifications Theory (McQuail, 2010) and Jung's study (2009) were used to analyze factors influencing informants' consumption decision of Korean TV series.

K-Pop Media Consumption

K-Pop Music

Majority of the younger informants started to follow K-pop media from songs and singer groups and later cross to other types of media. On the other hand, the older informants started to follow through TV series and did not cross to song. Moreover, the younger informants often talked to friends about K-pop media, had their own group of friends who liked similar things and were active audiences. They tended to actively look for any updates on their favorite K-pop stars' activities. Some of them went to concert tours and even went to the airport to greet their favorite bands with self-made banners.

Korean Television Series

The older informants mostly enjoyed watching TV series when they had free time. Some of them listened to K-pop songs but they did not actively searching for new songs or information about singers. All of non-working informants spent most of their free time in front of the television to watch TV series or surfing the net to look for information about their favorite idols. However, the working group had different approach to K-pop media consumption after they had worked. On one hand, those who had recently worked were more active consumers of K-pop. In contrast, this gradually decreased as they worked for longer period. Two oldest informants spent most of their free time on something else and were not as active consumers as they used to be. The reasons were work commitment and their change of preference.

Initial Exposure to K-Pop

Most of the informants came to contact with K-Pop media through female friends or family members whereas the remaining came across K-Pop media by themselves, either through the Internet or local television. The youngest informant started to follow K-Pop media because she wanted to be accepted by her friends. In terms of initial exposure through the Internet or local television, there was one informant who first disliked K-Pop media, but changed her opinion after watching a series.

Male Characters' Characteristics in Korean TV Series

Physical Appearance

All informants agreed that most male characters in Korean series were somewhat attractive, especially for the male supporting actors. The informants felt that in many series, the male supporting actors were generally more attractive and better looking than the leading actors.

Personality

Male supporting actors were always portrayed as kind, monogamous and always supportive of the leading female. However, leading actors were more diverse according to the stories. In some television series, the leading actors were very cheerful while those in the others could be very introvert. Sometime, they had to be older, to accommodate the character that they were playing. Although not all leading male actors were handsome, they were all very charming.

Factors Influencing Informants' Consumption Decision of Korean TV Series

The analyses yield that there were two prominent factors that influence informants' decision to watch Korean series. The first factor was appearances of the male characters in Korean TV series. They had major impact on the decisions of the informants regarding whether to watch a series. The influence was greater on younger informants than the older informants. Most of the younger informants decided to watch a series solely based on the male casts. They were likely to watch a series when their favorite idols from boy bands were part of the cast, regardless of how good the plots were. In addition, as long as the male casts were good looking, they had no problem finishing the whole series. The two youngest informants agreed that male actors' appearance was the most important factor.

The second factor was story or plot of the series. Actors' appearances remained the most important factor for university informants. However, the plot became increasingly important factor. They still decided which series to watch based on male casts but they would not continue to watch the series if they did not find the plot interesting. Moreover, some of them did not mind bad looking actors if the plot was extremely good.

For most of the working informants, the male character's appearance became less important. It still held some significance on the informants. However, plot was the most important factor and ultimately made the informants to decide whether they would finish the series.

DISCUSSION

From the findings, some important results are worth addressing. Firstly, the younger audiences are more comfortable with all types of media and have little problem switching around. They enjoy music, TV series, movies and variety shows, etc. They are also more active and are more likely to seek out those who have the same interest to share their opinions or enjoy activities together. Some of the younger informants can understand some Korean because they, together with their group, translate sub-title for Korean TV programs and share them in their fan sites. The reason behind this is that they want to know what

their favorite idol said or did in mass media. This is consistent with Siriyuvasak and Hyunjoon (2007) research stating that many females were learning Korean in schools as a result of Korean wave.

On the other hand, the older informants tend to follow fewer types of media. While the informants are consumers of TV series by default, some of them also enjoy variety shows. However, none of them has any special attachment to Korean music. Larson, Kubey and Colletti's study in 1989 highlighted that adolescents who watched TV more were more likely to spend more time with family as watching TV was one of the common activities. In contrast, those that prefer listening to music spend more time with peers. When comparing this study to Larson's and colleagues' study (1989), it is to be expected that younger adolescents who meet friends with common interest in school every day will enjoy music better, compare to older adolescents who have more commitments and responsibilities.

Another issue is how Korean TV series portrayed male characters, especially the main and the supporting characters as perfect men. Almost all of the informants admitted that the cast of main and supporting male characters influence their decision to choose a TV series to watch. This finding is supported by Jung's (2009) research claiming that physical attraction was important to female audiences. While the quality of the script was as equal or more important to the older informants, the cast was the most important factor for the younger informants. The reason given by the older informants was that they had passed the time where good looking men were everything. On the contrary, they watched TV series in more intellectual approach and need something more than just good looking males.

One method which the Korean excels in was converging all of their channels into a single cultural product (Shim, 2006; Siriyuvasak & Hyunjoon, 2007). They invested a lot of time and money into grooming celebrities. They in turn, were physically attractive, able to sing well and act well. Thus, they were able to cross platform easily. One example was to debut them as a solo or group singer, then casted them to a TV series or host a variety shows when they gained enough popularity. By doing so, they were able to influence fans to switch to other media channel. This was different than their Thai counterpart which most of celebrities are only attune to one type of the media.

Another important finding is that majority of the informants first came across K-pop media through friends and family members. Being female in adolescent period, they preferred to be with friends rather than being alone (Cobb, 2001; Chan-ame & Chan-ame, 1977). More importantly, at 13-15 years old, they preferred to hang out with friends of the same gender. Therefore, there was a high tendency for a person to adopt his/her friends' hobbies or habits. On the other hand, the informants who came across K-pop media by themselves exposed to them through surfing the Internet or browsing the television. Unsurprisingly, the informants claimed that they spotted a good-looking person in the Internet and eager to find out more about him. Before long, they had already been consumers of K-pop media.

CONCLUSION

This research discovers that female audiences tended to be more attracted to an opposite gender when they reach puberty. At this point, there was a possibility that they would make their decisions based on their group decisions. Once, they become older and more dependent, their decisions would be more heavily based on personal preferences. This re-

search also uncovered that male's appearance was the most important factor that influenced females' media consumption. It was possible that other factors may be overlooked during the process. However, its importance became less as the informants got older. Nonetheless, it still held some significance when older informants made their decision.

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APPENDIX

Table A.

Informants' Profile

No.	Pseudonym	Age	Occupation	K-Pop Media Exposure (No. of years)
1.	Lookmai	16	High school student	6
2.	Yeen	17	High school student	5
3.	Nokyoong	18	University student	6
4.	Dao	19	University student	6
5.	Bow	20	University student	8
6.	Shawn	20	University student	7
7.	Tangkua	20	University student	6
8.	Rei	21	University student	6
9.	Noon	22	University student	6
10.	Nook	23	University student	8
11.	Yui	23	Call center officer	10
12.	Keaw	24	Product designer	10
13.	Nim	25	Nurse assistant/University student	6
14.	Meaw	26	Event organizer	10
15.	Ae	26	Secretary	10

**A SURVEY OF SOCIAL ENTERPRISE LEGAL FRAMEWORK IN ASEAN:
THE CASES OF CAMBODIA AND INDONESIA**

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ABSTRACT

Social enterprise has increasingly become a worldwide phenomenon with its ultimate aim of solving social problems and creating sustainable social values. However, despite a concomitant growth in the academic interest worldwide in recent years in social enterprise, the study of its legal and regulatory regime is limited. Understandably, social enterprise law is a very complex subject, since it involves several complicated aspects of law, particularly those dealing with organisational forms, governance and social benefit assessment. The main argument in this paper is that the development of social enterprise requires a favourable legal framework which satisfies the needs of social entrepreneurs through a survey of social enterprise legal contexts in ASEAN with a view to seeing where social enterprise law is available and where it is non-existent. My aim is to see the development of social enterprise legal framework in ASEAN for the purpose of further developing this type of business as a sustainable growth engine in the region.

KEY WORDS: Social entrepreneurship; social enterprise; law; ASEAN

INTRODUCTION

Social entrepreneurship has become a worldwide phenomenon whose ultimate aim is to contribute to a more balanced social and economic development. The phenomenon has also established its presence in ASEAN. In fact, the social enterprise movement has become even more significant in this region after the establishment of the ASEAN Community (AC) and the adoption of the United Nations' *Transforming Our World: the 2030 Agenda for Sustainable Development* (UNGA, 2015). It is widely believed that social entrepreneurship could be a new hope for solving social problems such as poverty, inequalities, poor health and well-being, educational failures, which are affecting the underdeveloped and the developing world, including most ASEAN countries. Part 1 of the article will portray how social enterprises have emerged in ASEAN. Then, we will see in Part 2 how each ASEAN country responds to the social enterprise movement with a focus on legal measures adopted to support the social enterprise sector. The final part will analyse similarities and differences of the social enterprise legal framework in ASEAN. The conclusion will confirm that for social entrepreneurship to become an effective tool for sustainable development in ASEAN, a specific legal framework for social enterprises, particularly a social enterprise legal form, is needed.

This article uses the documentary research method with the qualitative analysis of primary documents, which mainly are ASEAN country analysis reports on social enterprise conducted by International Comparative Social Enterprise Models (ICSEM) and the British

Council, as well as certain legislations e.g., Cambodia's Law on Associations and Non-Governmental Organizations (LANGO) 2015. There are three limitations of this article. First, adopting the document-based analysis, the article lacks empirical evidence. Second, it does not provide an in-depth analysis of social enterprise, but rather a concise analysis report focusing on legal issues. Finally, the survey does not cover every ASEAN country. Only two developing ASEAN countries will be examined, namely, Cambodia on the mainland Southeast Asia; and Indonesia on the maritime part of the region. Thailand is also excluded since I have already conducted a comparative study of social enterprises in Thailand and the UK (Nuchpam, 2016). Despite such limitations, the article not only provides a bird's-eye view of the growing social enterprise sector in Cambodia and Indonesia, but also analyses the legal infrastructure of social enterprises in these two countries. The legal infrastructure of social enterprise in ASEAN still remains an under-researched topic, and this paper is expected to shed some light on it. I hope to conduct a future research on legal aspects of ASEAN social enterprise to gain a deeper and better understanding of the significance of social enterprise to the sustainable development of ASEAN.

Overview of Social Enterprises in ASEAN

Many developed countries, particularly development agents such as international NGOs, have been trying to help solve social problems in ASEAN where most people are still poor and uneducated. The assistance is mainly in a form of financial aid. However, such a support cannot go on forever. This is where social entrepreneurship comes into play and is viewed as an effective solution to social problems. Therefore, why is social entrepreneurship significant for the sustainable development in ASEAN? First, social enterprises have existed in ASEAN for a long time. They have been part of even the smallest sector in society (Association of Southeast Asian Nations, 2014). This means that social problems could be tackled from the core. Second, the social enterprise concept of self-reliance, mutual trust, cooperation, and public benefit could create sustainable developments in this region. Third, there are already many success stories of ASEAN social enterprises which could help inspire young social entrepreneurs to join the social enterprise sector (Dacanay, 2006). Nonetheless, the legal status of social enterprises in ASEAN is still unclear. Even Singapore, the only developed country in ASEAN, does not have a specific legal framework for social enterprises though the country provides its social entrepreneurs with the detailed legal handbook (The Law Society of Singapore, 2016). Consequently, social enterprises are operated by various organisational forms. This could cause ambiguity and become an obstacle to the development of the social enterprise sector in the region (Yockey, 2014). It is therefore necessary that ASEAN consider creating a suitable legal environment for social enterprises.

Cambodia

Social Enterprise Landscape

“To comprehend [social enterprise] in Cambodia, one has to be mindful of the context and most fundamentally the specificity of culture and recent history of the country” (Lyne, Khieng & Ngin, 2015, p. 5). The history of Cambodia, particularly during and after the Khmer Rouge regime, has significantly influenced what Cambodia is today, including the emergence of social enterprise in the country. In the early 1990s, which mark both the end of the civil war in Cambodia and the time when the social enterprise movement started to

take shape in the western world, international non-governmental organisations (NGOs) flocked to Cambodia bringing in foreign aid to help reconstruct the country (B2B Cambodia). However, without doubt, the external funding has been substantially cut worldwide prompting NGOs in Cambodia to seek alternative sources of income while pursuing their social objectives. To put it simply, "...NGOs [thus] constitute a central element of the context in which [Cambodian] SEs emerge" (Lyne et al., 2015, p. 6).

Transforming NGOs into social enterprises is not that simple since the definition of social enterprise in Cambodia is still unclear. In fact, as we shall see later, most ASEAN countries are having difficulties understanding the social enterprise concept. This is mainly because social enterprise is considered a hybrid organisation, comprising two main conflicting elements: the social and entrepreneurial (Doherty, Haugh & Lyon, 2014). This results in a diversity of social enterprise models with various legal measures involved. In Cambodia, most social enterprises are in the form of NGOs or registered with the Interior Ministry as associations. These are social mission-driven non-profit organisations (NPOs), which have been influenced by international funding, and which still rely on grants and donations and are social mission-driven. However, since purely non-profit organisations struggle to seek traditional funding sources, they have to branch out to diversify their income, particularly into markets or the for-profit sector. The majority of Cambodian social enterprises have thus become "trading NPOs" (Khieng & Dahles, 2015). Lyne et al. (2015, p. 9) categorise Cambodian social enterprises using the social enterprise models proposed by Defourny and Kim (2011), showing that, apart from the majority of them, which are trading NPOs, there are also the Work Integration SE (WISE), the non-profit cooperative, the non-profit-for-profit partnership and the community development enterprise. Such a variety of organisational forms confirms the need to survive financially (i.e., trading NPOs and non-profit-for-profit partnerships), as well as to meet various social missions (i.e., WISEs focusing on employment opportunities; and community development enterprises aiming to promote participatory local development).

Legal Framework

Cambodia does not have a specific legal framework for social enterprises. This means that different social enterprise models are under different rules and regulations, i.e., Law on Taxation 2004, Civil Code 2007, Law on Agricultural Cooperatives 2013, Law on Associations and Non-Governmental Organizations (LANGO) 2015, etc. (ICNL, 2016a). The recently-approved LANGO (generally known as NGO law) is currently being confronted by national and international organisations for violating freedom of association and other fundamental rights (ICJ, 2015). The entire NGO community, including social enterprises operated by NGOs (mainly trading NPOs), is expected to be affected by this legislation. Despite its aim to regulate NGOs, which are mostly informal, tax-avoiding and deregistered, excessive documentation for registration and reporting would definitely make the trading NPO form unattractive for social entrepreneurs and investors. However, Khieng and Dahles (2014) believe that the NGO law could help legitimise the social enterprise sector and propose that "social enterprise clauses" be embedded in the legislation.

With the current controversy over the LANGO, it does not seem easy to amend the law to support the social enterprise sector. It might be better if other types of social enterprises are promoted, particularly the business model, such as the non-profit-for-profit partnerships. These partnerships are regulated by Law on Commercial Enterprises 2005, which

has yet to recognise the hybrid nature of social enterprises. Nonetheless, it is widely believed that such business forms, particularly partnership and company, give SEs financial sustainability and effective governance. But without a specific legal framework, SEs adopting business legal forms risk having mission drift (Dees, 1998). Still, “[t]his is in summary the type of SE that the ‘impact investment’ platforms in Cambodia are really interested in” (Lyne et al., 2015, pp. 18-19).

Indonesia

Social Enterprise Landscape

The emergence of social enterprise in Indonesia was very much influenced by political transitions from authoritarianism during 1959-1998 (the Soekarno and Soeharto regimes) to democracy from 1998 (Idris & Hati, 2013). Under the authoritarian governments, the traditional third sector organisations (TSOs) in Indonesia, mainly representing the philanthropic, the religious-based community and associative, and the cooperative traditions, were directly controlled and intervened by the State (Pratono, Pramudija & Sutanti, 2016, pp. 8-14). Philanthropic groups, mostly set up as non-profit organisations i.e. foundations and NGOs, started off by confronting government control, but later became partners with the State called “government-civil society organisation partnership”. Apart from philanthropy, religion has been playing an important role in solving social problems in the country. They operate in a form of religious-based community enterprises and associations. The third traditional social enterprise model is cooperatives. They are “acknowledged as one of the largest components of civil society...In 2015, there were 150,223 cooperatives in Indonesia,...[representing] 14.14% of the country’s total population...[and] around 1.7% [of the GDP]” (Pratono et al., 2016, p. 13). The cooperative sector has been so significant that the cooperative principles have been embedded in Article 38 of the Indonesian Constitution (Vu, 2014, p. 193). Like Cambodia, pre-independence Indonesian social enterprises adopted several organisational forms and struggled to be independent from government control. Even though the cooperatives were highly recognised, they were heavily regulated with state intervention.

Since 1998, the government has played a role of supporter and facilitator of the social enterprise sector, rather than that of a ruler, through policies and regulations. Even though traditional third sector organisations mentioned earlier are still active today, there has been a worldwide trend of economic empowerment in the sector, making them more entrepreneurial in pursuing their social objectives (Idris & Hati, 2013, pp. 20-21; Leadbeater, 2007). Adapted from the social enterprise traditions, more rational social enterprise models have emerged. They include the entrepreneurial non-profit organisation, the social cooperative, the community development enterprise, and the social business (Pratono et al., 2016, pp. 22-27). Apart from sharing social goals of creating the public good, these social enterprises aim to be financially viable through trading, cooperative networking and self-reliance, rather than depending on grants, donations or government supports and funding. One of the significant developments in the social enterprise sector in Indonesia is the establishment of the “Social Enterprise Association” or “AKSI” in 2009 with its great success in organising the first national meeting of Indonesian social enterprises in April 2010 (Pratono et al., 2016, p. 15). Nonetheless, despite closer public and state attention, Indonesia still lacks effective strategic measures on how to promote the social enterprise sector.

For example, there are currently no clear definition, legal status, or institutional support of social enterprises.

Legal Framework

Even though the emergence of Indonesian social enterprises could be traced back as far as the colonial time, under the Soeharto regime they were strictly controlled by *Law No. 8 of 1985* regarding Societal Organizations (generally known as “Mass Organisations”). This law was “designed to create one organizational status for all types of interests - activity, profession, function or religion - so that it would be easier for the regime to control them” (ICNL, 2016b). This shows that the government viewed social enterprises in that time as a threat to authoritarianism. In fact, such a view does not seem to change much today since there is now *Law No. 17 of 2013* regarding Societal Organizations. Some provisions in the law are being condemned for harming freedom of association. For example, certain activities of social enterprises are restricted such as obtaining foreign donations without the government’s consent (Civicus, 2013; Gumbs, 2013). Foundations and associations are categorised as societal organisations with legal entity status under this law while other societal organisations have no legal entity status (ICNL, 2016b).

Generally speaking, there is currently no specific legal framework for social enterprises in Indonesia and the definition of social enterprise varies greatly. This is in response to various social enterprise roots and traditions. Only two legal forms – foundations and associations – are legally recognised as social enterprise (Societal Organization). However, these traditional legal forms can neither embrace the varied nature of social enterprises nor effectively engage in their social and entrepreneurial activities. In addition, other types of social enterprises such as social cooperatives and social business are regulated under different rules and regulations. For example, *Law No. 25 of 1992* on Cooperatives govern the basic principles of cooperatives. Since there is no law specially designed for social cooperatives, Law No. 25 is applied. We might ask why we need a specific law for social cooperatives since the existing law has already covered many important aspects of cooperatives e.g., their functions, membership, structure, capital requirements, and establishment and dissolution. The answer is simple. If the current law cannot effectively regulate/facilitate the mainstream cooperatives sector, how can it be suitable for a hybrid cooperative form of social cooperatives? According to Sugarda (2016), the sharp decline in the development of Indonesian cooperatives, which were once the country’s economic pillars, was mainly caused by the “lack of conducive regulatory environment” (Sugarda, 2016, p. 4388). Since *Law No. 17 of 2012* on Cooperatives was revoked, the Government went backward to the old Law No. 25 of 1992, which contains a complex and lengthy formation process not suitable for fast changes in the economy.

ANALYSIS

We can see that social enterprises in Cambodia and Indonesia have been in existence and played an important role in their respective societies since the 1990s. The emergence of social enterprises in these two ASEAN countries has been influenced greatly by political control resulting in the adoption of legal frameworks (i.e. Cambodia’s NGO law and Indonesia’s Mass Organization law) which are more restrictive than supportive. However, despite political interference and unrest, social enterprises continue to strive for growth and developments in these region (Moss & Thomas, 2017).

One great leap of these social enterprises is in response to the globalisation and the liberalisation of the economy. To put it simply, many traditional social enterprises, which mainly rely on grants, donations and state funding, have begun to seek alternative sources of revenue, particularly through trading in the for-profit sector and becoming partners with, rather than recipients of aid from, government agencies. Traditional social enterprises have realised they cannot survive without reliable sources of income since grants and donations have seriously declined, and this has compelled them to engage in a very competitive fight for survival. Consequently, many traditional third sector organisations (i.e., NGOs, foundations and associations) have attempted to be more entrepreneurial in pursuing their social missions, for example, by applying business models to their activities (Kusumasari, 2015). In Cambodia, there are trading NPOs, WISEs, non-profit-for-profit partnerships and community development enterprises; and entrepreneurial NPOs, social cooperatives, community development enterprises and social businesses in Indonesia, among which we can clearly see some similarities of these organisations.

Nonetheless, funding is not the only problem for social enterprises. It is not easy at all for these hybrid social-entrepreneurial organisations to explain themselves to the public that their objective is not profit maximisation. People tend to believe that business only represents private profit, not public benefit. Some social enterprises in Cambodia and Indonesia solve such a problem by setting up a traditional legal form such as foundation to maintain their social objective, as well as an entrepreneurial one such as limited company to generate income through trading. One example is Bina Swadaya, a non-profit publishing organisation, whose aim is to help farmers gain knowledge and information (Pratono et al., 2016, p. 10). In order to survive in the business, the publisher decided to set up a limited company as its commercial branch having rich hobby farmers as targeted customers. “Employing about 1,500 people and providing sustainable livelihoods for many others, [Bina Swadaya’s branch companies] generate profits over USD 5 million annually, which are used to finance 95% of Bina Swadaya’s budget for its development work among the poor” (Pratono et al., 2016, pp. 10-11). Is it OK for Bina Swadaya to achieve its social mission with the profit generated from trading? Why not? The end result is for the greater good. If the company had not made such a decision, it might have been shut down without benefiting anyone.

The example of Bina Swadaya also signifies the need for legal framework specially designed for social enterprises. The organisation had to create a different legal entity mainly because its non-profit legal form did not permit profit making and sharing. Limited company is just an option (but a popular one) among many other legal forms. As we have seen, there are many legislations involving social enterprises in Cambodia and Indonesia. The good thing is they provide social entrepreneurs with a variety of choices; hence, they can choose the model that best suits their social activities. But these also make the legal status of social enterprise ambiguous and complex. In addition, some legislations have not been updated for a long time (i.e., Indonesian cooperatives law), and most importantly most existing legal forms (mainly traditional non-profits or for-profits) cannot effectively apply to the *not-for-profit* or *hybrid* nature of social enterprise. I therefore propose that Cambodia and Indonesia (as well as other ASEAN countries including Thailand) start considering the development of the social enterprise legal framework to help support and promote their respective growing social enterprise sectors.

CONCLUSION

The cases of Cambodia and Indonesia certainly do not represent the whole social enterprise landscape of ASEAN. Nonetheless, the growth of the social enterprise sector in these two countries has amply testified to their growing importance. There are both differences and similarities between Cambodian and Indonesian social enterprises, because they operate in different social, cultural and political contexts. However, their recent emergence has also confirmed that both traditional third sector organisations such as foundations and associations and NGOs can no longer adequately serve to redress the imbalances in society, especially the “gaps” left by the state and the market. But most significantly from my point of view, the difficulties being experienced by social enterprises in both countries clearly show that they still lack adequate public-policy support, especially in the form of a proper legal vehicle that adequately caters to their hybrid nature – that is, enabling them to more effectively operate as businesses with social missions.

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**AN EMERGING TRANSNATIONAL IDENTITY IN ASEAN:
AN EMPIRICAL ANALYSIS OF REGIONAL ATTITUDES**

by

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ABSTRACT

ASEAN was established in 1967 by the five original member states of Indonesia, Malaysia, the Philippines, Singapore and Thailand. Over the next 32 years, Brunei, Cambodia, Laos, Myanmar and Vietnam joined. Today, much of Southeast Asia proper is benefiting from ASEAN membership on economic, political and sociocultural fronts. Even so, it is not clear whether transnational attitudes are present as one would expect from transnational engagement at the ASEAN level. In this study, the researcher looks specifically at transnational attitudes in ASEAN states by answering the questions of whether transnational attitudes are present in ASEAN states and, if so, what do they look like. Logistical regression is used to test hypotheses gauging transnational attitudes and the findings indicate that economic development, contact with outsiders and pro-regional attitudes matter, just to varying degrees across the Southeast Asian landscape. The results have important implications for understanding the effectiveness of ASEAN as a source of unity and progress across the region.

KEY WORDS: ASEAN, economic development, emerging states, transnationalism

INTRODUCTION

The formation and presence of transnational attitudes are of significant interest to modern social scientists. In the era of globalization, the people of the world seem to be more interconnected with the different peoples of the world, holding affections more broadly than ever before. Globalization and technology have equipped the citizens of the world with the tools necessary to stay informed of global events and the resources to act if needed. Therefore, it is not surprising to find that people are identifying beyond their state borders in a transnational manner. Subsequently transnational attitudes are starting to emerge.

Transnational attitudes can be broadly construed as attitudes of respect towards people, places and processes that extend beyond the borders of one's own state. The reasons such attitudes have emerged vary considerably; however, several prominent causes have already been articulated. First of all, economic development has a positive impact on transnational attitudes as improved standards of living offer people the opportunity to be concerned with quality of life issues (Vaitsos 1971). Since quality of life issues in modern times are more transnational in nature, attaining a higher economic status would provide individuals with the financial security to focus their attention more broadly. In some cases, these attitudes are even fostered by traveling abroad or being exposed to cultures that are foreign to one's own (Wals et al 2015; Warwick 1971). Finally, regional organizations

have been known to have a positive impact on transnational attitudes as people tend to develop affection towards these organizations (Wals, et. al 2015).

As just discussed, one prominent way transnational attitudes are forged is through regional organization initiatives. One clear case of this in modern times is the European Union (EU), which serves as a transnational source of peace, prosperity and unity for Europeans (“The Founding Fathers,” n.d.). Transnational attitudes are actually present in other less developed regions of the world also, such as Southeast Asia, through the Association of Southeast Asian Nations (ASEAN). ASEAN is the regional organization that promotes regional peace, stability, development and mutual respect among the people of the Southeast Asian states and was formed in 1967 by the founding member states—that is, Indonesia, Malaysia, the Philippines, Singapore and Thailand (“ASEAN Conception and Evolution,” 2012).¹ Over the next three decades other states joined, namely Brunei, Cambodia, Laos, Myanmar and Vietnam. The primary regional focus of transnational attitudes in this study is within Southeast Asia.

In this study, the researcher conducts a test of transnational attitudes across ASEAN member states. Transnational attitudes are narrowly defined in this study as the people of Southeast Asia identifying as Asian in addition to, or instead of, their respective national identity. The researcher seeks to answer the questions of whether transnational attitudes are present in ASEAN states and, if so, what do they look like. This is therefore an exploratory investigation into transnational attitudes in Southeast Asia. First, the researcher briefly summarizes transnational attitudes in the ASEAN context. Next, the researcher discusses the hypotheses and then moves into a discussion of the data, method and the results of this study. The results are that while transnational attitudes are present across ASEAN, the causes are varied. The researcher concludes with a discussion of the important implications of this study.

TRANSNATIONAL ATTITUDES IN ASEAN

Even though transnational attitudes are understudied in Southeast Asia, such attitudes are quite prevalent throughout the region. Table 1 presents the transnational attitudes across the founding ASEAN member states. Transnational attitudes in the founding states range from approximately 37 percent of the population in Indonesia to 63 percent in Singapore. In over half of the founding member states, transnational attitudes are held by well over half of the population, namely in the Philippines, Singapore and Thailand. Interestingly enough, at least one of these states, Singapore, was authoritarian at the time of data collection and continues to operate as an autocracy. Depending on the actual timing of the collection of data in Thailand, it could very well have also been autocratic as on September 19, 2006, the military marched on the democratically elected government and overthrew it in a peaceful military coup (Owen 2013b). In the Philippines, however, the regime type is

¹ Quite recently, many in Thailand have been spectators to the transformation of Praya Suandokmai (Lundberg), from a successful Thai celebrity to a global humanitarian. She is creating awareness of the plight of more than 650,000 Syrian refugees in Jordan (Tantiwarodom 2017). Praya was appointed as Thailand’s first Goodwill Ambassador of the United Nations High Commissioner for Refugees (UNHCR) on January 31, 2017. In a series of social media videocasts, Praya has become a prominent advocate for bringing awareness to the plight of Syrian refugees to the Thai people through the Thai language. This is a clear recent example that transnational attitudes exist in Thailand.

democratic. Moreover, even in the states where transnational attitudes characterize less than half of the population, democracy exists. In other words, regime type is not necessarily associated with transnational attitudes in the founding member state context.

Table 1.

Transnational Attitudes in Founding ASEAN Member States

	Indonesia	Malaysia	Philippines	Singapore	Thailand
Transnational Attitudes	36.8%	42.3%	57.5%	63.0%	54.9%
Have	338	400	573	646	549
Don't Have	580	545	423	379	451
Total	918	945	996	1025	1000

Source. Asian Barometer: 2006 and 2007 Waves.

Table 2 presents transnational attitudes across the non-founding ASEAN member states. Transnational attitudes range from a low of around 40 percent in Myanmar to almost 88 percent in Vietnam. In the cases of Cambodia, Laos and Vietnam, the percentage of those with transnational attitudes greatly outnumbers those without such attitudes, ranging from over 60 percent in Laos to almost 88 percent in Vietnam. In the case of all these states, all have autocratic regimes.

Table 2.

Transnational Attitudes in Non-founding ASEAN Member States

	Cambodia	Laos	Myanmar	Vietnam
Transnational Attitudes	78.6%	61.3%	39.6%	87.2%
Have	795	605	396	869
Don't Have	216	382	603	128
Total	1011	987	999	997

Source. Asian Barometer: 2006 and 2007 Waves.

While transnationalism seems to be prevalent across Southeast Asia, the causes remain virtually unknown. Interestingly enough, unlike the EU, several ASEAN states are in fact autocratic, even though transnationalism seems to be relatively high. This not only makes this study interesting, but also timely given the modern challenges to democracy.

HYPOTHESES

Following the causal discussion above, several hypotheses are derived and tested:

H1: People are more likely to have transnational attitudes when they are the beneficiaries of economic development. In the era of globalization where transnational enterprises are economically prospering, opportunities for international interaction can lead to greater cultural awareness and understanding (Vaitsos 1971). This in turn can lead to increased transnational attitudes.

H2: People are more likely to have transnational attitudes when they have greater contact with foreigners. Increased interaction between the different peoples of the world increases

the likelihood of understanding, friendships, tolerance and ultimately peace (Wals et al, 2015; Warwick 1971). This inevitably has a positive impact on the attitudes of those involved “in the direction of greater accommodation and international understanding” (Warwick, 1971, 656).

H3: People with pro-regional organization attitudes are more likely to possess transnational attitudes. Regional organizations such as ASEAN tend to promote transnational policies that increase transnational attitudes and perhaps even international integration (Wals et al, 2015).

DATA AND METHODS

To test the above hypotheses, data is assembled from the 2006 and 2007 waves of the Asian Barometer. The Asian Barometer is the best data for this study for at least two important reasons. First, all member states, whether founding members or not, have benefited to varying degrees from ASEAN membership and the data used in this study was collected after the people of each state had the opportunity to understand the benefits of membership. This barometer also provides important regional identifiers, such as capital cities and larger urban areas, which allows for the controlling of regional identifiers where economic development is more likely to be present. Logistical regression is used specifically because there are two categories on the dependent variable.

Dependent Variable

The dependent variable is from a single questionnaire item used to understand respondents' transnational attitudes. The Asian Barometer measures how people report their identity as part of a larger Asian identity that transcends national borders. Their Asian transnational identity is measured on a 2-point scale from no Asian transnational identity to an Asian transnational identity. Even though measurement error is a concern in any study using survey data, there is no reason to believe any of these measures induced bias.

Independent Variables

The primary research question explores the causes of transnational attitudes. The first hypothesis proposes a relationship between transnational attitudes and the beneficiaries of economic development—that is, the individual's relative standard of living. The Asian Barometer measures how people report their standard of living on a 5-point scale from low to high. Next, socioeconomic status (SES) is also employed as education and income typically offer additional insight into economic development and the associated attitudes (Chen and Zhong 1999; Shi 2000; Zhong, Chen and Scheb 1998). While individuals with higher education levels tend to have the knowledge needed for upward mobility, in addition to being exposed to differing perspectives and typically have the capacity to process larger amounts of information than their counterparts, those with higher incomes tend to have a greater stake in economic and political outcomes (Chen and Zhong 1999; Lake and Huckfeldt 1998; Lipset 1959; Owen 2013a; Verba and Nie 1972; Wolfinger and Rosenstone 1980; Zhong and Kim 2005). This survey measures how people report their SES—both education and income—on a major public opinion survey by asking the respondents to state their current education and income levels.

The second hypothesis investigates the relationship between transnational attitudes and interaction with foreigners. Interaction with foreigners can occur in a variety of meaningful ways. From having family members abroad, traveling abroad, communicating with foreigners through electronic means and social media for personal and professional reasons to watching foreign television programming and inviting foreigners over to one's house as guests. The Asian Barometer measures how people report their interaction with foreigners across a series of measures. Interaction is measured on a 2-point scale from no interaction (0) to interaction (1).

The final hypothesis investigates the relationship between transnational attitudes and pro-regional organization (i.e. ASEAN) sentiments. Regional organizations tend to be important as they can help with regional issues such as peacekeeping, protecting the environment, aiding other less fortunate countries and helping with refugees and human rights. The Asian Barometer measures how people report their sentiment for regional organizations across the aforementioned issues on a major public opinion survey. Their sentiment is measured on a 2-point scale from whether regional organizations should be involved (1) or not (0).

Control Variables

Several variables are related to political attitudes and it is therefore important to control for them in this study. It is expected that demographics—age and gender—offer some explanatory power when attempting to understand attitudes (Chen and Zhong 1999; Shi 2000; Zhong and Kim 2005; Zhong, Chen and Scheb 1998). Controlling for urbanization, another demographic measure, is also prudent as it is likely those from urban areas possess attitudes that differ from those in the countryside (Owen 2015; Owen 2013a; Shi 1998; Zhong 2004). The Asian Barometer measures how people report their age, gender and residence² on a major public opinion survey.

Concern for issues like the environment tends to also be important for the formation and perpetuation of transnational attitudes. Many of the modern environmental challenges today are situated beyond the state level and plague entire regions of the world, necessitating cooperation. It is therefore reasonable to argue that when individuals are concerned with the state of the environment—that is, when people are dissatisfied with the state of the environment; when people worry about environmental destruction, pollution and problems related to natural resources—and feel the government is not doing a great job protecting the environment, they look to entities like ASEAN to help. The Asian Barometer measures how people report their responses to questions related to the above environmental issues on a major public opinion survey.

This study also controls for factors employed in other studies. On the one hand, factors indicative of individual freedoms, such as supporting democracy, are important for increasing transnational attitudes. The freedom to choose oftentimes results in individuals that are invested in their community—that is, social capital may actually be higher (Owen 2015; Putnam 1994; Pye 1992). On the other hand, less individual freedom may potentially depress transnational attitudes. Those who demonstrate extreme expressions of national-

² In the cases where urbanization is not provided on the Asian Barometer, the capital city is used instead.

istic tendencies tend to not exhibit transnational tendencies and subsequently are likely less supportive of regional organizations such as ASEAN (Owen 2015). The Asian Barometer measures how people report their responses to questions about these economic and political factors—democratic support, nationalism and social capital—on a major public opinion survey.

Finally, controlling for the effect of mass media is important. In some states, where media is state controlled, a unique approach is needed. Where state-control of media exists, media outlets can be used for indoctrination into the autocratic ideology and it is therefore unlikely individuals are contemplating the meaning of the media content (Shi 2000). Since the educated are typically more informed, they can potentially rise above the indoctrination and contemplate the meaning. Therefore, in this study traditional types of mass media—newspaper, radio and television—are interacted with education. Freedom House³ data is used to assess the freedom of press in all states and those with the ‘not free’ designation are states with the interaction between media source and education: Cambodia, Laos, Malaysia, Myanmar, Singapore, Thailand and Vietnam. In states where the Freedom House designation of the press is free or partially free, this study assumes that the media is not used for indoctrination purposes and therefore no interaction with education is necessary. The Asian Barometer measures how people report their media usage on a major public opinion survey.

RESULTS

Tables 3 and 4 present the results of this analysis. Table 3 presents the results of the founding ASEAN states. Even though the transnational attitudes are present, ranging from approximately 37 percent to around 63 percent, there is no single cause. However, the empirical evidence of somewhat supportive of the first hypothesis—benefiting from economic development increases transnational attitudes—across the founding ASEAN states. In Indonesia, higher living standards and income increase the likelihood of having transnational attitudes by 1.250 and 1.132 times respectively; however, education is statistically insignificant. In Singapore, the story is very similar as living standards and income increase the likelihood of possessing transnational attitudes by 1.408 and 1.073 times respectively, with education not impacting either way. In the Philippines, living standards and education, not income, increase the likelihood of holding transnational attitudes by 1.263 and 1.343 times respectively. In Thailand and Malaysia, the story is quite different. In Thailand, being a beneficiary of economic development does not impact transnational attitudes while education actually depresses the likelihood of having transnational attitudes in Malaysia by 0.715 times.

The hypothesis of the contact with foreigners tells an inconsistent and empirically insufficient story across these states. For instance, while having family abroad increases the likelihood of possessing transnational attitudes by 1.349 times in the Philippines, it actually decreases this likelihood by 0.346 times in Indonesia. Moreover, watching foreign television in Thailand actually increases the likelihood of holding transnational attitudes by 2.078 times. Though it should be noted that foreign television has the opposite effect in Malaysia as it decreases this likelihood by 0.450 times. Along similar lines, if in Singapore

³ <https://freedomhouse.org/>.

and having friends abroad, the likelihood of having transnational attitudes is decreased by 0.629 times.

Table 3.

Logistical Regression Results of Transnational Attitudes in Founding ASEAN Member States

	Transnational Attitudes									
	Indonesia (S.E.)	Odds Ratio	Malaysia (S.E.)	Odds Ratio	Philippines (S.E.)	Odds Ratio	Singapore (S.E.)	Odds Ratio	Thailand (S.E.)	Odds Ratio
<i>Beneficiaries of Econ Dev</i>										
Living Standard	0.223* (0.126)	1.250	-0.069 (0.141)	0.933	0.233* (0.139)	1.263	0.342*** (0.122)	1.408	0.223 (0.149)	1.250
Education	0.148 (0.119)	1.159	-0.335** (0.164)	0.715	0.295*** (0.081)	1.343	-0.227 (0.107)	0.797	0.148 (0.150)	1.159
Income	0.124*** (0.044)	1.132	0.043 (0.049)	1.044	0.010 (0.023)	1.011	0.071* (0.039)	1.073	0.020 (0.022)	1.020
<i>Contact with Foreigners</i>										
Family Abroad	-1.061*** (0.382)	0.346	0.221 (0.217)	1.248	0.299* (0.171)	1.349	-0.114 (0.170)	0.892	0.083 (0.225)	1.087
Travel Abroad	2.211 (1.406)	9.123	0.311 (0.381)	1.365	0.437 (0.429)	1.547	0.142 (0.176)	1.152	-0.229 (0.438)	0.796
Friends Abroad	0.727 (0.751)	2.070	-0.264 (0.282)	0.768	0.148 (0.309)	1.160	-0.464*** (0.179)	0.629	-0.263 (0.396)	0.769
Foreign TV	-0.040 (0.180)	0.961	-0.799*** (0.210)	0.450	-0.108 (0.166)	0.897	-0.125 (0.189)	0.882	0.731*** (0.219)	2.078
Email Foreigners	0.941 (1.839)	2.564	-0.595 (0.443)	0.552	0.294 (0.414)	1.341	0.086 (0.223)	1.089	-0.679 (0.491)	0.507
Job with Contact	-1.221 (1.268)	0.295	0.550 (0.401)	1.733	-0.393 (0.578)	0.675	0.284 (0.245)	1.328	0.122 (0.710)	1.130
<i>Pro-Regional Org Attitudes</i>										
Peacekeeping	-0.261 (0.393)	0.771	0.162 (0.206)	1.176	-0.361 (0.270)	0.697	-0.155 (0.255)	0.856	0.072 (0.203)	1.075

Table 3. (Cont.)

	Indonesia (S.E.)	Odds Ratio	Malaysia (S.E.)	Odds Ratio	Philippines (S.E.)	Odds Ratio	Singapore (S.E.)	Odds Ratio	Transnational Attitudes Thailand (S.E.)	Odds Ratio
Protect Environment	-0.011 (0.190)	0.989	-0.044 (0.185)	0.957	0.251 (0.176)	1.286	0.444** (0.215)	1.558	0.127 (0.151)	1.136
Aid	-0.107 (0.187)	0.898	-0.360* (0.200)	0.698	0.435** (0.171)	1.545	-0.169 (0.240)	0.845	0.098 (0.196)	1.103
Refugees	-0.016 (0.222)	0.985	-0.392* (0.206)	0.675	-0.141 (0.181)	0.869	-0.010 (0.238)	0.990	-0.170 (0.200)	0.843
Human Rights	0.022 (0.273)	1.022	0.239 (0.215)	1.270	-0.215 (0.239)	0.807	0.923*** (0.312)	2.516	0.001 (0.212)	1.001
<i>Demographic Factors</i>										
Age	-0.002 (0.007)	0.998	-0.002 (0.008)	0.998	0.002 (0.006)	1.002	-0.013* (0.008)	0.987	0.005 (0.006)	1.005
Female	-0.105 (0.165)	0.900	0.129 (0.162)	1.137	-0.163 (0.162)	0.850	0.087 (0.158)	1.090	-0.012 (0.145)	0.988
Bangkok	-	-	-	-	-	-	-	-	0.741*** (0.235)	2.098
Hanoi	-	-	-	-	-	-	-	-	-	-
Phnom Penh	-	-	-	-	-	-	-	-	-	-
Vientiane	-	-	-	-	-	-	-	-	-	-
Yangon	-	-	-	-	-	-	-	-	-	-
Urban	0.266 (0.169)	1.304	0.035 (0.182)	1.036	0.257 (0.181)	1.293	-	-	0.601*** (0.193)	1.823

Table 3. (Cont.)

	Transnational Attitudes									
	Indonesia (S.E.)	Odds Ratio	Malaysia (S.E.)	Odds Ratio	Philippines (S.E.)	Odds Ratio	Singapore (S.E.)	Odds Ratio	Thailand (S.E.)	Odds Ratio
<i>Perceptions Towards Gov- ernment Handling of Envi- ronmental Issues</i>										
State of Environment	0.116 (0.106)	1.123	0.050 (0.099)	1.051	0.045 (0.091)	1.046	-0.207* (0.109)	0.813	-0.065 (0.078)	0.937
Pollution Concern	-0.060 (0.217)	0.941	-0.215 (0.172)	0.807	-0.043 (0.217)	0.958	-0.828*** (0.176)	0.437	0.164 (0.197)	1.178
Environmental Problems	-0.069 (0.117)	0.933	0.143 (0.126)	1.154	-0.371*** (0.104)	0.690	-0.102 (0.132)	0.903	0.106 (0.097)	1.112
<i>Political and Social Prefer- ences</i>										
Democratic Support	0.119 (0.134)	1.126	0.540*** (0.144)	1.715	-0.450*** (0.122)	0.638	0.141 (0.131)	1.151	-0.033 (0.144)	0.967
Nationalism	-0.197 (0.219)	0.821	-0.195 (0.124)	0.822	0.369** (0.186)	1.446	0.139 (0.126)	1.149	0.186 (0.298)	1.204
Social Capital	0.725*** (0.181)	2.065	0.480*** (0.174)	1.615	-0.113 (0.173)	0.893	-0.228 (0.166)	0.796	0.535*** (0.174)	1.707
<i>Media</i>										
Internet	1.649*** (0.504)	5.200	-0.417* (0.233)	0.659	-0.518* (0.298)	0.596	0.053 (0.197)	1.055	0.284 (0.230)	1.328
Internet Board	- -	-	-0.675 (0.505)	0.509	-0.285 (0.399)	0.752	0.311 (0.341)	1.364	-1.295 (0.465)	0.274
Newspaper	0.250 (0.171)	1.284	- -	-	0.216 (0.162)	1.241	- -	-	- -	-
Newspaper * Education	- -	-	0.031 (0.066)	1.032	- -	-	-0.040 (0.067)	0.961	-0.045 (0.055)	0.956

Table 3. (Cont.)

	Transnational Attitudes									
	Indonesia (S.E.)	Odds Ratio	Malaysia (S.E.)	Odds Ratio	Philippines (S.E.)	Odds Ratio	Singapore (S.E.)	Odds Ratio	Thailand (S.E.)	Odds Ratio
Radio	0.267 (0.168)	1.306	- -	-	-0.456** (0.186)	0.634	- -	-	- -	-
Radio * Education	- -	-	-0.087 (0.058)	0.916	- -	-	0.018 (0.041)	1.018	-0.002 (0.052)	0.998
TV	-0.123 (0.317)	0.884	- -	-	0.779*** (0.265)	2.178	- -	-	- -	-
TV * Education	- -	-	0.414*** (0.119)	1.513	- -	-	0.060 (0.068)	1.062	0.124 (0.120)	1.132
Log Likelihood	-463.606		-453.250		-472.733		-501.668		-574.128	
N	781		720		781		841		909	

Source. 2006 and 2007 Asian Barometer.

* - .10 statistical significance level.

** - .05 statistical significance level.

*** - .01 statistical significance level.

The final hypothesis of pro-regional organization attitudes has some support across some of these states. In Singapore, there is a belief that regional organizations can protect the environment and human rights as they increase the likelihood of having transnational attitudes by 1.558 and 2.516 times. Regional organizations can provide aid according to Filipinos as providing aid increases the likelihood of possessing transnational attitudes by 1.545 times. This picture is not all positive as being in Malaysia while providing aid and helping refugees decreases the likelihood of having transnational attitudes by 0.698 and 0.675 times.

Other findings are of particular interest as they relate to having transnational attitudes in the founding states. Regarding demographics, younger Singaporeans have greater transnational attitudes than their older counterparts as age decreases the likelihood of having transnational attitudes by 0.987 times in Singapore. No such distinction is made across the other founding states. Moreover, no distinction is made across the genders either. There are, however, a few distinctions made in terms of location, though solely in Thailand—being from Bangkok and the urban regions increases the likelihood of having transnational attitudes by 2.098 and 1.823 times respectively. Regarding the perceptions of the effectiveness of government in resolving environmental problems, the statistically significant findings are limited to the Philippines and Singapore. Filipinos are more satisfied with the government's handling of environmental problems as this satisfaction increased the likelihood of transnational attitudes 0.690 times. Conversely, Singaporeans who viewed the government capable of handling environmental issues and pollution had a negative impact on transnational attitudes as these decreased the likelihood of having transnational attitudes by 0.813 and 0.437 times respectively.

Political and social preferences have a perplexing relationship with transnational attitudes in the founding ASEAN states. Democracy seems to be important to understanding transnational attitudes, though it is now clear what the relationship looks like. While in Malaysia, supporting democracy increases the likelihood of having transnational attitudes by 1.715 times, the opposite is happening in the Philippines as supporting democracy decreases the likelihood by 0.638 times. Nationalism tends to be an important causal factor in the Philippines as it increases transnational attitudes by 1.446 times. Social capital seems to be a better yardstick for measuring transnational attitudes as it matters in Indonesia, Malaysia and Thailand—social capital increases the likelihood of having transnational attitudes by 2.065, 1.615 and 1.707 times respectively.

Acquiring necessary information through certain media types is also crucial to understanding these transnational attitudes. While the internet is an important source for gaining access to necessary information, the impact on transnational attitudes vary considerably. On the one hand, the internet has a very positive influence on transnational attitudes in Indonesia as it increases the likelihood of these attitudes by 5.200 times. On the other hand, the internet negatively impacts these attitudes in Malaysia and the Philippines by 0.659 and 0.596 times respectively. Moreover, using the radio to acquire information also seems to depress transnational attitudes in the Philippines as this media type decreases these attitudes by 0.634 times. Gaining information through television seems to maintain a positive correlation with transnational attitudes, at least in Malaysia and the Philippines, as this increases transnational attitudes by 1.513 and 2.178 times respectively.

Table 4.

Logistical Regression Results of Transnational Attitudes in Non-founding ASEAN Member States

	Cambodia (S.E.)	Odds Ratio	Laos (S.E.)	Odds Ratio	Myanmar (S.E.)	Odds Ratio	Vietnam (S.E.)	Odds Ratio
<i>Beneficiaries of Econ Dev</i>								
Living Standard	0.064 (0.153)	1.066	0.120 (0.128)	1.128	0.266** (0.115)	1.304	-0.289 (0.198)	0.749
Education	0.322 (0.174)	1.380	0.059 (0.104)	1.061	0.017 (0.089)	1.017	-0.057 (0.095)	0.945
Income	0.182*** (0.046)	1.200		1.012	0.030 (0.036)	1.030	-0.029 (0.044)	0.971
<i>Contact with Foreigners</i>								
Family Abroad	-0.453** (0.179)	0.636	-0.006 (0.155)	0.994	0.226 (0.153)	1.253	0.187 (0.240)	1.206
Travel Abroad	0.424 (0.527)	1.529	-0.044 (0.206)	0.957	-0.998 (1.136)	0.369	-0.225 (0.809)	0.798
Friends Abroad	0.513 (0.512)	1.670	0.504 (0.438)	1.656	0.637 (0.484)	1.892	-0.044 (0.600)	0.957
Foreign TV	-0.091 (0.295)	0.913	-0.574 (0.360)	0.563	-0.142 (0.219)	0.867	-0.437* (0.229)	0.646
Email Foreigners	0.433 (0.600)	1.541	0.738 (0.711)	2.093	-0.417 (0.535)	0.659	0.311 (0.512)	1.365
Job with Contact	0.883 (1.081)	2.419	-0.277 (0.435)	0.758	-0.622 (0.559)	0.537	0.800 (0.864)	2.226
<i>Pro-Regional Org Attitudes</i>								
Peacekeeping	-0.244 (0.262)	0.783	0.635** (0.282)	1.886	- -	-	-0.151 (0.363)	0.860

Table 4. (Cont.)

	Cambodia (S.E.)	Odds Ratio	Laos (S.E.)	Odds Ratio	Myanmar (S.E.)	Odds Ratio	Vietnam (S.E.)	Odds Ratio
Protect Environment	0.228 (0.178)	1.256	0.489*** (0.164)	1.630	- -	-	0.441* (0.245)	1.555
Aid	0.051 (0.241)	1.052	0.430** (0.208)	1.537	- -	-	0.254 (0.295)	1.289
Refugees	0.197 (0.231)	1.218	0.525** (0.210)	1.690	- -	-	-0.949*** (0.250)	0.387
Human Rights	0.307 (0.252)	1.359	0.258 (0.203)	1.294	- -	-	- -	-
<i>Demographic Factors</i>								
Age	-0.004 (0.007)	0.996	0.007 (0.007)	1.007	-0.003 (0.006)	0.997	-0.015 (0.010)	0.985
Female	-0.627*** (0.175)	0.534	0.023 (0.158)	1.023	-0.561*** (0.137)	0.570	-0.488** (0.226)	0.614
Bangkok	- -	-	- -	-	- -	-	- -	-
Hanoi	- -	-	- -	-	- -	-	0.274 (0.371)	1.315
Phnom Penh	-0.132 (0.204)	0.876	- -	-	- -	-	- -	-
Vientiane	- -	-	0.291* (0.155)	1.338	- -	-	- -	-
Yangon	- -	-	- -	-	0.064 (0.164)	1.066	- -	-
Urban	-	-	-	-	-	-	-	-
	-		-		-		-	

Table 4. (Cont.)

	Cambodia (S.E.)	Odds Ratio	Laos (S.E.)	Odds Ratio	Myanmar (S.E.)	Odds Ratio	Vietnam (S.E.)	Odds Ratio
<i>Perceptions Towards Government Handling of Environmental Issues</i>								
State of Environment	0.129 (0.092)	1.138	-0.116 (0.085)	0.891	0.176** (0.082)	1.193	-0.337*** (0.118)	0.714
Pollution Concern	-0.448** (0.178)	0.639	-0.592*** (0.158)	0.553	0.131 (0.184)	1.140	0.435* (0.234)	1.544
Environmental Problems	0.147 (0.110)	1.159	-0.111 (0.108)	0.895	- -	-	0.428*** (0.156)	1.534
<i>Political and Social Preferences</i>								
Democratic Support	0.379** (0.150)	1.461	- -	-	- -	-	- -	-
Nationalism	-0.176 (0.208)	0.839	2.007** (0.867)	7.444	0.132 (0.117)	1.142	0.550** (0.280)	1.733
Social Capital	-0.008 (0.193)	0.992	-0.296* (0.169)	0.744	-0.080 (0.150)	0.923	0.621*** (0.228)	1.861
<i>Media</i>								
Internet	- -	-	-0.070 (0.452)	0.933	0.150 (0.357)	1.162	-0.226 (0.336)	0.798
Internet Board	-1.627 (0.820)	0.196	-0.432 (0.709)	0.650	0.172 (1.016)	1.187	-0.191 (0.528)	0.826
Newspaper	- -	-	- -	-	- -	-	- -	-
Newspaper * Education	0.029 (0.075)	1.029	0.080 (0.050)	1.083	0.058 (0.042)	1.059	0.098* (0.052)	1.103

Table 4. (Cont.)

	Cambodia (S.E.)	Odds Ratio	Laos (S.E.)	Odds Ratio	Myanmar (S.E.)	Odds Ratio	Vietnam (S.E.)	Odds Ratio
Radio	-		-		-		-	
Radio * Education	-0.074 (0.093)	0.929	0.130** (0.053)	1.139	0.051 (0.042)	1.053	0.013 (0.051)	1.013
TV	-	-	-	-	-	-	-	-
TV * Education	-0.033 (0.117)	0.967	0.074 (0.078)	1.077	0.067 (0.061)	1.069	0.144** (0.067)	1.155
Log Likelihood	-457.532		-536.379		-642.699		-289.843	
N	963		886		996		858	

Source. 2006 and 2007 Asian Barometer.

* - .10 statistical significance level.

** - .05 statistical significance level.

*** - .01 statistical significance level.

Table 4 presents the results of the non-founding ASEAN states. While transnational attitudes seem more prominent in the non-founding ASEAN states, at between approximately 40 and 90 percent, the causes vary considerably. First of all, the first hypothesis has a little support in that income increases the likelihood of having transnational attitudes in Cambodia by 1.2 times while living standards in Myanmar have a similar effect on these attitudes at 1.304 times. The rest of the measures across all the non-founding states are simply statistically insignificant—that is, no statistical differentiation at all! Next, the support is absent for the second hypothesis asserting a relationship between contact with foreigners and transnational attitudes. As a matter of fact, having family members abroad for Cambodians and watching foreign television for Vietnamese depresses transnational attitudes by 0.636 and 0.646 times respectively.

Finally, support for the final hypothesis where pro-regional organizational sentiments increase transnational attitudes seems to be most prominent. In Laos, regional organizations working in the areas of peacekeeping, protecting the environment, providing aid and assisting refugees increase the likelihood of transnational attitudes by 1.886, 1.630, 1.537 and 1.690 times. This is likely because Laos has constantly been the recipient of such donations in the past. In Vietnam, regional organizations working to protect the environment yields positive outcomes as it increases the likelihood of these attitudes by 1.555 times; however, when these organizations attempt to assist refugees the outcome is a decrease in the likelihood of having transnational attitudes by 0.387 times.

The controls shed important light on transnational attitudes. For instance, in Cambodia, Myanmar and Vietnam, males have greater transnational attitudes than females as being female decreases the likelihood of having transnational attitudes by 0.534, 0.570 and 0.614 times respectively. In terms of location, only being from Vientiane, seems to matter; being Laotian from Vientiane increases the likelihood of possessing transnational attitudes by 1.338 times. While the findings on the perceptions of the effectiveness of government in resolving environmental problems cover all the non-founding states and are statistically significant, the findings are mixed. On the one hand, the Myanmar people's perceived state of the environment, along with Vietnamese worries about the environment and perceptions towards the government's handling of environmental issues, are quite positive as they increase the likelihood of holding transnational attitudes by 1.193, 1.544 and 1.534 times. On the other hand, Cambodian and Laotian worries about the environment actually decrease the likelihood of transnational attitudes by 0.639 and 0.553 times. Moreover, Vietnamese satisfaction with the government's handling of environmental problems is decreasing the likelihood of transnational attitudes by 0.714 times.

The political and social preferences, along with media usage, tell an interesting story. First of all, support for democracy in Cambodia increases the likelihood of transnational attitudes by 1.461 times. Given the nature of the autocratic regimes in the other non-founding states, it is not difficult to understand why observations on these measures are missing. Next, nationalism is a driver of transnational attitudes in both Laos and Vietnam as it increases the likelihood of these attitudes by 7.444 and 1.733 times respectively. Then, social capital increases the likelihood of transnational attitudes in Vietnam by 1.861 times. Social capital also decreases the likelihood of transnational attitudes in Laos by 0.744 times. Finally, media usage for understanding transnational attitudes has limited explanatory capacity in the non-founding ASEAN states. The traditional media sources—newspapers, radio and television—are each statistically significant in only one of the four

non-founding states. Using the newspaper and television to acquire needed information is important in Vietnam as it increases the likelihood of transnational attitudes by 1.103 and 1.155 times. The radio is important in Laos as it increases the likelihood of transnational attitudes by 1.139 times.

Collectively these findings tell an interesting story across the founding and non-founding ASEAN states. With the exception of Malaysia and Thailand, support for the beneficiaries of economic development hypothesis had a moderate amount of support across the founding ASEAN states. Support for this hypothesis across the non-founding ASEAN states is extremely weak, with only minimal support in Cambodia and Myanmar. The contact with foreigners' hypothesis does not really maintain support across either the founding or non-founding states. The final hypothesis, gauging pro-regional organization attitudes, maintained mixed statistical significance—support in the Philippines and Singapore; rejection in Malaysia—in the founding states. Support in the non-founding states on this hypothesis is a bit stronger, especially in Laos; in Vietnam the findings simply lack clarity.

IMPLICATIONS

While transnational attitudes are present in all ASEAN states, founding and non-founding alike, the causes vary considerably. Perhaps a deeper look into transnational attitudes at the state level also tells an interesting story. For instance, transnational attitudes as an outcome of economic development are clearly present in Indonesia, the Philippines and Singapore. To a lesser degree this is also the case in Cambodia and Myanmar, suggesting that there is more to the relationship between transnationalism and economic development than the founding-non-founding state dichotomy. The impact of pro-regional organization attitudes on transnationalism also cuts across this dichotomy as Laotians and Singaporeans share this commonality.

This study demonstrates the complexity of an exploratory study that seeks to understand causality as it applies to transnationalism at the regional level. Given the findings in this study, it may be the case that there are state level explanations for transnational attitudes in Southeast Asia. Therefore, more work is needed. Now that it is clear that transnationalism matters in Southeast Asia, it is time to start exploring other potential explanations for transnational attitudes at the regional level.

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DIALECTAL VARIATION OF THE LAWUA LANGUAGE IN CHAING MAI AND MAE HONG SON PROVINCES

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ABSTRACT

This paper is a preliminary comparative study of phonetic variation of Lawua dialects in three Lawua regions (western, eastern, and northern) of Chiang Mai and Mae Hong Son provinces. Its aim is to describe Lawua phonological variation of the given regions. The analysis is based on the wordlist of 352 items selected from Mann (2004), Yai Sa-nga (1985), and Komonkitiskun (1985), and received aurally from language informants from each of the three regions. Data are examined and analyzed to derive phonetic features and phonological variation of more than three-word pairs. The findings reflect five aspects: (1) high and advanced front vowels are frequently found in northern dialect, (2) more vowel clusters appear in western and eastern dialects and single vowels in northern dialect and vice versa, (3) the ease of the articulation of consonants and Thai-borrowed words emerge mostly in eastern dialect, and (4) archaic language forms are likely to remain in western dialect.

KEY WORDS: Language, Lawua, dialect, phonetic, phonological variation

INTRODUCTION

Genetically, Lawua is one of the 23 Austroasiatic (AA) languages which belong to Mon-Khmer family's Palaungic branch. Linguistically, Lawua has some specifically phonetic and phonological features as other AA languages do. For example, most words are monosyllabic and disyllabic (sequisyllabic)¹, it has a large consonant and vowel inventory, and its vowel qualities do not have a length contrast (Komonkitiskun, 1985; Lipsius, F., n.d.).

Lawua is primarily spoken in Mae Hong Son and Chiang Mai provinces (Premsrirat, 2006) of Thailand. Mae Hong Son Lawua is found in two districts: Mae La Noi and Mae Sariang. Chiang Mai Lawua is also found in two districts: Mae Chaem and Hot. Mitani (1965) and Kauffman (1972) categorize Lawua spoken in these two provinces into two major Lawua dialects: Western Lawua (WL) dialect in Mae La Noi and Mae Sariang of Mae Hong Son province, and in Mae Chaem district of Chiang Mai province, and Eastern Lawua (EL) in Hot district of Chiang Mai. The WL can also be culturally rather than linguistically subdivided into two parts (i.e., the Northern Lawua (NL) and the Southern Lawua (SL)). For this study, Lawua dialects are grouped into three regions as suggested

¹ refers to 'one-and-a-half syllable long (Jenny & Sidwell, 2014, p.15)

by Schlatter and Janet (2002 as cited in Nahhas, 2011): Central or simply Western (WL), Northern (NL), and Eastern (EL).

In WL, La Up (LU) dialect is generally accepted (Schatter, 1976) because of its being widely understood by most of WL speakers while in Bo Luang (BL) dialect is commonly accepted in EL as Mitani (1965) pointed out that EL and WL are quite different from each other. Kok Luang (KL) dialect of the NL varies greatly among the major two dialects. In fact, every dialect has uniquely phonetic and phonological features which slightly differ from the dialect of adjacent villages as Schatter states that almost every village has some variance of dialect and close villages do not have trouble with the differences. Furthermore, these dialects differ (phonetically and phonologically) in some minor ways such as aspiration vs non-aspiration, and changes in vowel glides. Thomas and Headley (1970) agreed with Schatter that almost all villages have their own distinct dialects and they are likely to differ more in greater distance.

Lawua has dialectal variation as many linguists of the past have claimed. For example, Pa Pae (PP) and Phae (P) have a voiced velar fricative /ɣ/² in initial-syllable which corresponds to /r/ sound in other dialects as in the word /ɣaʔ/ - /raʔ/ 'big'. Another example is that Omphai (OP) and BL are different dialects because of their final-syllable sounds of /s, c/ which are frequently heard in OP (Schrock, et al., 1970) but are never heard in BL as in /mbroc/ - /brəɪk/ 'chillie'. Sometimes, these differences are minor such as aspiration vs non-aspiration as in /tʰiʔ/ 'one' in PP, but /tiʔ ~ teʔ/ in BL.

To further the study of those differences of Lawua language in Chiang Mai and Mae Hong Son provinces, the study of phonetic variation was designed to determine the phonetic features and phonological variation of Lawua language spoken in the three regions: WL, EL, and NL. The research findings may lead to the mapping of Lawua of Thailand and the future fieldwork on Lawua language development.

LITERATURE REVIEWS

Human language itself is unstable, varying, and non-uniform and differs internally. Actually, even the use of the language still varies from person to person, and speaker to speaker in terms of the pronunciation, word choice, the meaning of the word, and grammar without having changed linguistic meaning or its significance (Shareah, Mudhsh & Takhayinh., 2015).

This study relies on Variation theory as a framework of study. The Variation theory affirms that the variation in a language is featured by social factors such as social class and region as stated by Trudgil (1985, p. 34) that "The internal differentiation of human societies is reflected in their languages. Different social groups use different linguistic varieties, and as experienced members of a speech community we (and our man in the railway compartment) have learnt to classify speakers accordingly... We may note parallels between the development of these social varieties and the development of regional varieties: in both

² please refer to the International Phonetic Alphabet (IPA) at <https://www.internationalphoneticassociation.org/>

cases barriers and distance appear to be relevant.” Other factor which conditions linguistic variation is the geographical location that correlates with linguistically structural variation as in phonological, grammatical, and lexical levels. London English and New York English, for instance, are different systematically (Bright, 1976) or the word like “house” pronounced [hu:s] with a monophthong can be generally heard in the area of Britain north (of the river Humber) and pronounced [haus] with a diphthong in the south of the river (Trudgill, 1985) so these two dialects are linguistically dissimilar.

Additionally, phonological or grammatical features or lexical differences may correlate with ethnic-group differences. In Labov’s New York study, for instance, there were apparently significant differences in the English pronunciation of speakers from Italian, Jewish, and black backgrounds within the city. For example, high vowels as in “bad” and “bag” become a symbol of identification for New Yorkers from Italian backgrounds. Jewish speakers tend to have higher vowels than Italians in words like “lost” and “dog”. Some of Jewish who have learnt English as a second language do not distinguish the /ɔ/ in “coffee” from the /ʌ/ in “cup”, so that “coffee cup” may sound like /kɔfi kɔp/. English of Scotland: Lowland Scots speak either a local dialect or standard English with local accent and highlanders speak either standard Scots English or something not too far removed from this (e.g. Highlanders rather say “I don’t know” than “I dina ken” (Trudgill, 1985). Lawua exhibits some phonetic and phonological features that are frequent in the AA language branch and family as follows:

1. It usually has monosyllabic and disyllabic words. Actually the disyllabic word consists of a half syllable and is followed by one syllable that structurally is called “sesquisyllable” (one and a half syllable long) (Jenny & Sidwell, 2014), e.g., /kaɪ/ “wind”, /kaduəŋ/ “north”.
2. It has the large consonant inventory of 30 consonants (BL by Lipsius, 1970) which claims an average-sized inventory as so does the majority of AA languages (Jenny & Sidwell, 2014).
3. It has a very large vowel inventory of 10 vowel phonemes and 12 diphthongs plus 2 triphthongs (Blok, 2013) but all vowels’ qualities do not have a length contrast (Mitani, 1965) which do not correspond to most AA languages.
4. It does not have phonologically relevant register (Huffman, n.d.) and tone distinctions (Komonkitiskun, 1985).
5. It shows differing degrees of internal phonological diversity as Jenny and Sidwell (2014) state that small languages spoken in remote areas or in contact with different dominant languages tend to be more diverse, which is herein called “dialectal variation”.

METHODOLOGY

Lawua data were primarily based on the 352 item wordlist from Mann’s (2004) 504 comparative wordlist of Mainland Southeast Asian (MSEA) Languages under some word selection criteria that the words should be (a) core or basic vocabulary items, (b) relevant to cultures, nature and climate of the speech community, (c) not borrowed words, (d) not compound words, (e) not too general nor abstract, and (f) not taboo words.

Raw data on eight Lawua dialects for linguistic comparison were derived from different sources: (1) the data on La Up (LU), Bo Luang (BL), and Kok Luang (KL) dialects from seven Lawua informants: two from LP, three from BL, and two from KL, (2) the data on Phae (P) dialect from the work of Komonkitiskun (1985), and (3) the data on Dong (D), Chang Mo (CM), Pa Pae (PP), and Omphai (OP) dialects from the work of Yai Sa-nga (1985).

There were also some criteria for selecting qualified informants as follows: (1) they had to be native Lawua of the targeted dialects, (2) they had not lived outside their community for over 10 years' time, (3) they had to be both physically and mentally healthy, and (4) they should have been at least bilingual or multilingual with ability of understanding Standard Thai and/or Northern Thai (Regional Thai) to ease the interview. Their gender type, educational background, economic status and so on were excluded.

RESULTS

This study analyzed phonological variation of the eight Lawua dialects which are spoken in the following regions: (1) WL region includes LU, D, CM, and OP of Huai Hom sub-district of Mae Hong Son's Mae La Noi district, (2) WL region also includes P of Mae Sariang subdistrict of, and PP of PP subdistrict of Mae Hong Son's Mae Sariang district, (3) NL region is represented by KL of the far north of Huay Hom subdistrict, and (4) EL region is represented by BL of BL subdistrict of Chiang Mai's Hot district. Regarding the phonological variation of Lawua dialects, the phonological structure was analyzed in terms of word and syllable structure, and segmental phonemes and discussed.

Word and Syllable Structure

This section is divided into two separate points: words and syllables, and borrowed words and lexical variation.

Words and Syllables

The Lawua words are mostly monosyllabic, commonly disyllabic (sequisyllabic), and rarely trisyllabic. Its syllable pattern mainly is C(C)V(V)(C) and always stressed. The disyllable or sequisyllable always comprises one main and one minor syllables. The minor syllable is also called 'presyllable' and its pattern is (C)CV where C varies among [r], [l], [k], [ʔ], [s], [t], and [ə] and V is often [a] or [ə] and it is not stressed. In disyllabic words, the presyllable always precedes the main syllable. Trisyllabic words are rarely found in this language. However, the trisyllable pattern would be C(C)V(C)CVC(C)V(V)(C) and its main syllable is positioned finally. See table 1 below for details.

Table 1.

The Syllable Patterns of Lawua Language

Syllable Type	Syllable Pattern	Phonological Item (based on LU dialect)	Meaning
Monosyllabic	C(C)V(V)(C)	[kaɪ]	wind
		[hleʔ]	rain
		[k ^h rɛ]	gold
Disyllabic	(C)CVC(C)V(V)(C)	[kasaom]	night
		[sətaim]	nine
		[rəkoʔ]	milled rice
Trisyllabic	C(C)V(C)CVC(C)V(V)(C)	[c ^h utrəvu]	cloud
		[pəpəpəon]	female
		[ʔarə ^ŋ glɛh]	seventy

Notes. C = Consonant, V = Vowel, (C) = Possible consonant, (V) = Possible vowel
 [] = Square brackets for phonological items.

The presyllables in sesquisyllable words as [rə-, lə-] in WL possibly become [ʔa-, la-] in EL and [ra-, la-] in NL preferably. There is also some presyllable deletion in some dialects of WL, especially CM and OP as the word ‘night’ for other four dialects it becomes [kasaom] in LU, [ləsaum] in D and PP, and [rəsaum] in P while [saum] in CM and OP. See table 2 below.

Table 2.

The Presyllabic Variation

WL	EL	NL	Meaning
rə saic	ʔa saic	la ⁿ c ^h aic	to wash
lə piʔ	ʔa peʔ	la piʔ	shirt, top (clothes)
lə ʔue	la ʔoi	la ʔua	three
rə ŋaʔ	la haʔ	ra haʔ	to play (child)
rə ʔaom	la ʔaom	ra ʔaom	water

Notes. The presyllables are highlighted.

Borrowed Words and Lexical Variation

Many words that EL reliably borrowed from dominant Tai languages: Central Thai (CT), and Northern Thai (NT) whereas WL and NL still remain Lawua words or some of their own phonological features better. The most conservative dialect is WL. Some other words in NL may differ greatly from the other two regions and they are supposed to vary freely. See table 3 below.

Table 3.

Thai Borrowed Words in EL and Lexical Variation

WL	EL	NL	Meaning
katae	katai (CT , NT)	katɪ	rabbit
naək	tem (CT , NT)	nək	full (container)
səkɔʔ	cɛʔ (NT)	klaim	wet
kloŋ	klɔŋ (CT)	kloŋ	river
pləiʔ	p ^h onlamai (CT)	plaiʔ k ^h oʔ	fruit
kaɪ	kaɪ	^m paiŋ	wind
hom	hoom.biŋ	la ⁿ c ^h aiŋ	garlic
pluək	ŋasaŋ (NT , CT)	rahaŋ	elephant's tusks
sə ⁿ du	sarit	sanɔɛ	grasshopper
ʔdɛ	ⁿ dɛ	jɪɔɪ	forehead

Notes. [hoom.biŋ] “(white) garlic” in EL is believed to derive from two NT words [hɔm] “garlic” and [piŋ] “white”. It is suspicious that [s] followed by a low central vowel [a] in WL and EL could become [n^ch] in NL.

Among all eight dialects, the given word choices might have been problematic due to the informants' different worldviews. Thus, two or more Lawua words mean the same thing (but different in details) , e. g. [tu] , [^mblaun] , and [mo] are given which all mean “mountain”.

Segmental Phonemes

This section is divided into two main points: (1) consonants which are classified into three types (i.e., initial consonants, initial consonant clusters, and final consonants), and (2) vowels which are classified into three types (i.e., monophthongs, diphthongs, and triphthongs). The chart 1 below presents Lawua initial consonants.

Chart 1. Lawua Initial Consonants

MA \ PA		bb	lbd	lbv	av	pl	vlr	gt
stop	vl. uasp. vl. asp. vd. vl. pns. pgt.	p p ^h b ^m b*, ^m p*			t t ^h ⁿ d*, ⁿ t* ^ʔ d*	c c ^h * j hj* ⁿ c ^h * ^ʔ j*	k k ^h g* ^ŋ g ^ʔ g*	ʔ
nasal	vd. vl. pgt.	m hm ^ʔ m*			n hn ^ʔ n	ɲ ^ʔ ɲ*	ŋ hŋ ^ʔ ŋ	
trill	vd vl. pgt.				r hr* ^ʔ r*			
fricative	vl. vd. pgt.		f		s		ɣ* ^ʔ ɣ*	h
laterals	vd. vl.				l hl			
approximant	vd			w				

Notes. MA = Manners of Articulation', PA = Parts of Articulation, bb = Bilabial, lbd = Labio-dental, lbv = Labial-velar, av = Alveolar, pl = Palatal, vlr = Velar, gt = Glottal, vl = Voiceless, uasp = Unaspirated, asp = Aspirated, vd = Voiced, pns = Prenasalized, pgt = Pre-glottalized, the asterisk (*) = The initial consonants which do not occur in all dialects.

The examples of the initial consonants which occur in two dialects (Dong and Phae) are shown below. However, most dialects have this set of consonants.

Initial Consonant	Dong	Phae	Meaning
p	pəu	pəo	to fly
t	təm	təm	egg
c	cak	cak	deer
k	kaʔ	kaʔ	fish
ʔ	ʔɛ	ʔɛ	chicken
p ^h	p ^h ɔn	p ^h ɔn	five
t ^h	t ^h ak	t ^h ak	to shave off
c ^h	c ^h oh	c ^h oʔ	to sell
k ^h	k ^h oʔ	k ^h oʔ	tree
b	buət	broic	to wipe chillie
j	jum	jum	to die
ɲg	səŋglɔɛ	səŋglɔi	to think of
m	maic	maic	good
n	noŋ	noŋ	seed
ɲ	ɲueh	ɲueh	to laugh
ŋ	ŋok	ŋok	neck
hm	hmɔŋ	hmɔŋ	to hear
hn	hnam	hnam	blood
hŋ	hŋɔʔ	hŋɔʔ	husk rice
hr	hrei	hrei	thin
ʔd	ʔdɛ	ʔdɛ	forehead
ʔm	ʔmai	ʔmɔo	and round
ʔn	ʔnɔŋ	ʔnɔŋ	swamp jungle
ʔɲ	ʔɲuic	ʔɲuic	drunken
ʔŋ	ʔŋiɔŋ	ʔŋiɔŋ	short (of length)
r	ruɛ	ruɛ	fly
f	fɛʔ	fɛʔ	monkey
s	som	som	to eat (rice)
h	hak	hak	skin
l	lɔm	lɔm	sharp
hl	hlaʔ	hlaʔ	leaf
w*	wiʔ	wiʔ	left (side)

The [w] sound varies between [w, v] but [w] occurs more often than [v]. In KL, the [b] sound was not found. However, it may exist (in personal conversation with a KL native) in words like [buŋ] “a large container of husk rice”, [t^habəʔ] “a thread stretcher”, and [buəp] “a type of gourd”. Some words that sound the same in one dialect may give different meanings in other dialects.

Initial Consonant Variation

The table 4 below shows the variation of nine Lawua initial consonants, i.e., [p, t, k, b, ^ʔd, g, s, l, r] found in all eight different dialects.

Table 4.

The Initial Variation of [p, t, k, b, d, g, s, l, r] in All Dialects

	LP	D	P	PP	CM	OP	BL	KL	Meaning
p	puk	puk	puk	p^huk	p^huk	p^huk	puk	puk	‘to tie’
	pɿəʔ	pɿəʔ	pɿəʔ	p^hɿəʔ	p^hɿəʔ	p^hɿəʔ	pɿəʔ	kuəŋ	‘father’
	piŋ	puɿŋ	piŋ	p^hɛŋ	p^hɿəŋ	p^hɿəŋ	piŋ	piŋ	‘white’
t	tia	tuɛ	tiə	t^hɿə	t^hɿə	t^hɿə	tia	tu(k ^h ɔoʔ)	‘flower’
	tiəm	tiəm	tiəm	t^hɿəm	t^hɿəm	t^hɿəm	ⁿ tam	tiəm	‘short’ (height)
	tɿə	tɿə	tɿə	t^hɿə	t^hɿə	t^hɿə	tɿə	tɿə	‘duck’/ ‘bored’
k	kih	kih	kih	k^hih	k^hih	c^his	kih	kih	‘salt’
	kɿəh	kɿəh	kɿəh	k^hɿəh	k^hɿəh	k^hɿəh	kɿəh	kɿəh	‘to give’
	kuət	kuət	kuət	k^huət	k^huət	k^huət	kuət	kuət	‘old’
b	moɿŋ	ʔa ^m bum	muɛŋ	lə^mbom	ʔa^mbom	rə^mbom	ʔabəm	lamuəm	mouth
	^m biŋ	^m biŋ	biŋ	^mbiŋ	^mbiŋ	^mbiŋ	brəŋ	miŋ	mud
	^m bəok	^m bəik	bəok	^mbəuk	^mbəik	^mbəik	pəop	^m baək	broken
	buət	buət	ʔbuət	buət	buət	buət	ʔuət	ʔuət	to wipe
ʔd	ʔdɔih	ʔdɔeh	ʔdɔih	ʔɣɔeh	ʔrɔeh	ʔrɔs	ʔdɔih	ryʔ	finger
	ʔdɔŋ	ʔdɔŋ	ʔdɔŋ	ʔɣɔŋ	ʔrɔŋ	ʔrɔŋ	ʔdɔŋ	ruəŋ	post (pole)
	ʔdɔuŋ	ʔdɔuŋ	ʔdɔuŋ	ʔɣɔuŋ	ʔrɔuŋ	ʔrɔuŋ	ʔdɔuŋ	raoŋ	horn (animal)
	ʔdɛ	ʔdɛ	ʔdɛ	ʔɣɛ	ʔrɛ	ʔrɛ	ʔdɛ	(jɿə)rɪ	forehead
	(phe)ʔdauk	ʔdauk	(phe)ʔdaok	ʔɣauk	ʔrauuk	ʔrauuk	(pi)ʔduək	(ma)rək	forest
g	ŋgiəŋ	gih	gih	gih	gih	jih	ŋgaiih	ŋgiəŋ	tilted
	ŋglai	glai	glai	glai	glai	glau	glai	ŋglai	to fall down
	ŋgoiŋ	kət	goiŋ	kət	kət	kət	kuat	ŋgoin	cold
s	hjuək	suək	hjuək	suək	suək	suək	lasuək	sɪk	ear
l	ʔlaŋ	ʔlaŋ	ʔlaŋ	ʔlaŋ	ʔlaŋ	ʔlaŋ	ʔdaŋ, dɿŋ	laŋ	long (length)
r	reh	reh	reh	ɣeh	reh	res	reh	rih	root

raip	raip	raip	ɣaip	raip	raip	raic	raip	grass
rəih	reih	reih	ɣəih	reih	res	rəih	raih	spider
ruε	ruε	ruε	ɣuə	ruə	ruə	roi	roi	fly (n)
raʔ	raʔ	raʔ	ɣaʔ	raʔ	raʔ	raʔ	ɾʔ	big

Table 4. (Cont.)

	LP	D	P	PP	CM	OP	BL	KL	Meaning
ʔd	ʔdɔih	ʔdɔeh	ʔdɔih	ʔɣɔeh	ʔrɔeh	ʔrɔs	ʔdɔih	ryʔ	finger
	ʔdɔŋ	ʔdɔŋ	ʔdɔŋ	ʔɣɔŋ	ʔrɔŋ	ʔrɔŋ	ʔdɔŋ	ruɔŋ	post (pole)
	ʔdɔuŋ	ʔdɔuŋ	ʔdɔuŋ	ʔɣɔuŋ	ʔrɔuŋ	ʔrɔuŋ	ʔdɔuŋ	raɔŋ	horn (animal)
	ʔde	ʔde	ʔde	ʔɣe	ʔre	ʔre	ʔde	(jɛ)ɾɪ	forehead
	(phe)ʔdauk	ʔdauk	(phe)ʔdaok	ʔɣauk	ʔrauik	ʔrauik	(pi)ʔduək	(ma)rək	forest
g	ŋgiɔŋ	gih	gih	gih	gih	jih	ŋgaih	ŋgiɔŋ	tilted
	ŋglai	glai	glai	glai	glai	glau	glai	ŋglai	to fall down
	ŋgoiŋ	kət	goiŋ	kət	kət	kət	kuat	ŋgoiŋ	cold
s	hjuək	suək	hjuək	suək	suək	suək	lasuək	sɪk	ear
l	ʔlaŋ	ʔlaŋ	ʔlaŋ	ʔlaŋ	ʔlaŋ	ʔlaŋ	ʔdaŋ, dɛŋ	laŋ	long (length)
r	reh	reh	reh	ɣeh	reh	res	reh	rih	root
	raip	raip	raip	ɣaip	raip	raip	raic	raip	grass
	rəih	reih	reih	ɣəih	reih	res	rəih	raih	spider
	ruɛ	ruɛ	ruɛ	ɣuə	ruə	ruə	roi	roi	fly (n)
	raʔ	raʔ	raʔ	ɣaʔ	raʔ	raʔ	raʔ	riʔ	big

Notes. The first column presents the nine initial consonants that vary.

The initial [p, t, k] which are followed by a single high vowels [i, ɪ, u] or in vowel clusters [iə, ɪə, ui, uə, ue] in LU, D. and P will vary between [p^h, t^h, k^h] or [c^h] in PP, CM, and UP, However, they do not vary as such in BL of EL and KL of NL. The initial [b] as [bɪŋ] “mud” and [bəʊk] “broken” in P varies between [b ~ m̥b] in most dialects, [br ~ p ~ ʔ] in BL, and [m ~ ʔ] in KL. The initial [ʔd] as [ʔdəŋ] “horn” in D and BL varies between [ʔɣ] for PP, [ʔr] for CM and OP, and [r] for KL.

The initial [g] as [glai] “to fall down” in most dialects varies between [ŋg] in LU and KL and [k] as [kət] “cold” in most dialects. The initial [s] as [suək] “ear” for most dialects becomes [hj] as [hjuək] for LU and P. The initial [l] as [laŋ] “long” for KL varies between [ʔl] for most dialects, and [ʔd ~ d] for BL. And the initial [r] in most dialects becomes [ɣ] especially in PP.

Table 5.

The Initial Variation of [ʰd, d, t, ŋ, ʔŋ, w] in Three Regions

	WL	EL	NL	Meaning
ʰd	ʰdah	naʔ	ʰtah	if, even if
	ʰdɔkok	tɔkok	miəŋ.puəŋ	scorpion
	ʰdak	tak	ʰtak	tongue
d	daʔ	taʔ	ʰtaʔ	to shampoo (hair)
	dɔm ~ ʰdɔm	katɔm	ʰtəum	right (side)
	doic	tʰəɪk	ʰtʰuic	to spit
t	sətaʔ	sataʔ	saʰtaʔ	tail
	səteʔ	sataiʔ	saʰtiʔ	eight
	sətaim	sataiŋ	saʰtaim	nine
ŋ	raŋaʔ	lahaʔ	rahaʔ	to play
ʔŋ	ʔŋɔt	ʔuɔt	ŋuat	to listen
	ʔŋai (ʔŋɛ)	ʔia	ŋi	eyes
	ʔŋɔn	ʔuɔn	hip piət	some
w	vɛ	wɛ	ŋgon	trousers
	wic	wik	vik	sword
	wɪəh ~ vɪəh	wɪəh	vɪəh	wide, broad

Notes. (~) = to vary as, (ʔŋɛ) = for LP only.

The initial consonants [ʰd] as [ʰdak] “tongue” for WL varies between [t] for EL and [ʰt] for vary between NL while [d] in WL tends to vary from [t] as [katɔm] “right (side)” in EL to [ʰt ~ tʰ] in NL as [ʰtəum]. The initial [t] as [sətaʔ] or [sataʔ] “dog” in both WL and EL becomes [ʰt] as [saʰtaʔ] in NL. The initial [ŋ] as [raŋaʔ] in WL becomes [h] in BL and KL. The initial [ʔŋ] as [ʔŋɔt] “to listen” becomes [ʔ] in EL and [ŋ] in NL. The initial [w] varies between [w ~ v] in all regions but [w] is the more common variant.

Initial Consonant Cluster Variation

Table 6.

The Initial Cluster Variation of [p^hr, k^hr, c^h] in WL Dialects

	WL						EL	NL	Meaning
	LU	D	P	PP	CM	OP	BL	KL	
p ^h r	p ^h raim	p ^h raim	p ^h raim	pjaim	praim	praim	p ^h raim	praim	ancient
	p ^h raŋ	p ^h raŋ	p ^h raŋ	pjaŋ	praŋ	praŋ	p ^h raŋ	praŋ	roof
	p ^h rɛ	p ^h rɛ	p ^h rɛ	pjɛ	prɛ	prɛ	p ^h rɛ	prei	hail
k ^h r	k ^h raʔ	k ^h raʔ	k ^h raʔ	kjaʔ	kraʔ	kraʔ	k ^h raʔ	kraʔ	path
	k ^h rak	k ^h rak	k ^h rak	kjuak	krak	krak	k ^h rak	krak	buffalo
	sək ^h rak	sak ^h rak	sək ^h rak	sakjak	sakrak	sakrak	sak ^h rak	sakrak	red
c ^h	c ^h uəŋ	cuəŋ	c ^h uəŋ	c ^h uəŋ	c ^h uəŋ	c ^h uəŋ	cuəŋ	cɨŋ	foot
	c ^h ɪəm	cɪəm	c ^h ɪəm	c ^h ɪəm	^m baŋ	^m baŋ	talai	cɪəm	plate
	c ^h iŋ	c ^h iŋ	c ^h iŋ	c ^h iŋ	c ^h iŋ	c ^h iŋ	cɨŋ	ciŋ	to sew

The initial clusters [p^hr, k^hr] as [p^hraim] “ancient” and [khraʔ] “road” in LU, D, P, and BL which are followed by low front vowels [a, ɛ, ai] tend to vary between [pj ~ kj] in PP and [pr ~ kr] in CM, UP and KL. The initial [ch] as [c^huəŋ] “foot” in LU, P, PP, CM, and OP tends to become [c] in D, BL, and KL.

Table 7.

The Initial Consonant Cluster Variation of [hŋ, hl, hm, hn, hr] in the Three Regions

	WL		EL	NL	Meaning
	Others	PP			
hŋ	hŋɔʔ		hɔʔ	ŋhɔʔ	paddy rice
	hŋaəŋ		huəŋ	ŋaom	to steam
	hŋɔʔ		hɔʔ	ŋhyʔ	paddy rice
hl	hleʔ		hlaiʔ	lhiʔ	rain
	hlaʔ		hlaʔ	lhaʔ	leaf
	hlɔʔ		hlɔʔ	lhyək	bark
hm	hməŋ		hməŋ	mhyəŋ	hear
	hmaim		hmaiŋ	mheim	nail
	hmoʔ		hmɔɔʔ	mhoʔ	lung
hn	hnam		hnam	ŋham	blood
	hnap		mɔok	mok	to bury in ashes
hr	hrak		xak	hlak	rhak
	hrəi, hrei	xəi	hlai	rhai	thin
	hram		xam	hlam	rham

The initial [hŋ] as [hŋɔʔ] “paddy rice” in WL varies between [h] in EL and [ŋh ~ ɲ] in NL. The other initial consonants, i.e. [hl, hm, hn, hr] as [hlaʔ] “leaf”, [hmoʔ] ‘lung’, [hnam] “blood”, and [hrak] “to love” in WL do not vary much in EL, but in NL they become [lh, mh, ɲh, rh] as [lhaʔ], [mhoʔ], [ŋham], and [rhak].

Final Consonant Variation

The final consonants are positioned finally in a syllable phonologically and functionally. They consist of [p, t, c, k, ʔ, h, m, n, ɲ, ŋ] and occur in open syllables only. They vary from dialect to dialect as shown in the table below.

Table 8.

The Final Consonant Variation of [p, c, k, ʔ, h, m, n, ɲ, ŋ] in All Dialects

	WL						EL	NL	Meaning
	LU	D	P	PP	CM	OP	BL	KL	
p	raip	raip	raip	ɣaip	raip	raip	raic	raip	grass
k	^m bəok	^m bəik	bəok	^m bəuk	^m bəik	^m bəik	pəop	^m baɔk	broken
	haik	haik	haik	haik	haik	hauk	haik	haic	hair
	məuk	məik	məok	məuk	məik	məik	məop	maok	cow
c	^m broic	p ^h ic ^h o	broic	^m bjoc	^m broc	^m broc	brəik	puk preiʔ	chili
ʔ	plaiʔ	pleiʔ	pleʔ	pləiʔ	pleiʔ	pleʔ	pləiʔ	plaih	fruit
ŋ	c ^h iŋ	c ^h iŋ	c ^h iŋ	c ^h iŋ	c ^h iŋ	c ^h iŋ	cŋ	ciŋ	to sew
ɲ	poiɲ	poiɲ	poiɲ	poiɲ	poiɲ	poiɲ	pəŋ	poiɲ	to shoot
	^m biŋ	^m biŋ	biŋ	^m biŋ	^m biŋ	^m biŋ	brəŋ	miŋ	mud
n	paon	paun	paon	paun	paɪn	paun	paŋ	paon	four
	rəpaon	ʔəpaun	rəpaon	ləpaun	lapaɪn	lapaun	rapaŋ	rapaon	forty
m	sətaim	sataim	sətaim	sataim	sataim	sataim	sataiɲ	santaim	nine
	rətaim	lataim	rətaim	lataim	lataim	lataim	rataiɲ	rantaim	ninety

Table 8. (Cont.)

	WL						EL	NL	Meaning
	LU	D	P	PP	CM	OP	BL	KL	
h	rɛh	rɛh	rɛh	ɣɛh	rɛh	rɛs	rɛh	rih	root (tree)
	pləih	pliəh	phliəh	phliəh	phliəh	phliəs	pleiʔ	-	spear
	ləmɔih	ləmɔəh	ləmɔih	lamɔəh	lamɔəh	rəmɔs	ʔamɔih	lamuh	banana
	ʔɔih	ʔɔəh	ʔɔih	ʔɔəh	ʔɔəh	ʔɔs	ʔɔih	ʔyʔ	swollen
	səʔɔh	saʔɔh	səʔɔh	saʔɔh	saʔɔh	saʔɔs	saʔɔh	saʔyʔ	dry
	rəih	reih	reih	ɣəih	reih	res	jaŋrəih	jiəʔraih	spider
	maiɦ	maɦ	maɦ	maɦ	maɦ	maus	maɦ	maiɦ	nose
	ɲueɦ	ɲueɦ	ɲueɦ	ɲəɦ	ɲəɦ	ɲəs	ɲəɦ	ɲəɦ	to laugh
	maɪ maiɦ	maɪ maɦ	maɪ maɦ	maɪ maɦ	maɪ maɦ	mau maus	maɪ maɦ	mai maiɦ	money nose
	ɲəʔ ɲueɦ	ɲəʔ ɲueɦ	ɲəʔ ɲueɦ	ɲəʔ ɲəɦ	ɲəʔ ɲəɦ	ɲəʔ ɲəs	ɲəʔ ɲəɦ	ɲəʔ ɲəɦ	house to laugh

As printed in bold, the final [p, k, c] in all WL dialects possibly vary between them especially in BL and KL. The final [ʔ] variation was rarely found except for [plaih] “fruit” in KL. The final [ŋ, ɲ] appear to vary between themselves. The final [n, m] can become [ŋ, ɲ] in BL particularly. The final [h] clearly becomes [s] in most of the OP words.

Monophthongs

The Lawua vowel system is simple. Most dialects have a system of nine single vowels except for NL dialect which has 10 monophthongs. The Lawua vowel length is not contrastive. The chart 2 below presents the Lawua monophthongs.

Chart 2. Lawua Monophthongs

fronting high	Front	Central	Back
High	i y*	ɨ	u
Mid	e	ə	o
Low	ɛ	a (ɐ)	ɔ

Notes. The high front rounded vowel [y] was recently discovered in KL dialect of NL and it may be soon introduced to the modern Lawua phonology. Further studies are needed.

Table 9.

The Variation of [e, ε, ɔ, u] in WL, EL, NL Dialects

	WL		EL	NL	Meaning
	LU, D, P	PP, CM, OP	BL	KL	
e	rəmeʔ (ʔameʔ)	ʔamiʔ (ləmiʔ)	ʔamaiʔ	lameiʔ	male
	teʔ		taiʔ	teiʔ	hand, earth
	səŋeʔ (saŋiʔ)		saŋaiʔ	saŋeiʔ	sun
	ləteʔ (rəteʔ)		rataiʔ	raⁿteiʔ	eighty
ε	reh (yeh~res)		reh	rih	root
	ʔε		ʔε	ʔe	chicken
	leh		leh	lih	six
ɔ	malɔŋ		malɔŋ	malyəŋ	sky
	ŋɔ		ŋɔ	ŋy	fire
	sɔʔ		sɔʔ	syʔ	dog
	tɔm		tɔm	təum	egg
	dɔm		(ka)tɔm	"təum	bark
	hɔŋ		huəŋ	ŋaom	to steam
	pɔn		puən	som	to eat vegetable
	rəhɔn [ra-, la-]		rahuən	rahuən	fifty
u	tu	t^ho	to	tuə	shallow
	juʔ	joʔ	joʔ	juəʔ	to see
	juŋ	jɔŋ	jɔŋ	juəŋ	to know
	chuŋ	c^hɔŋ	cɔŋ	cuəŋ	to stand
	puk	p^hok	puək	puək	right
	rəjuŋ (ʔa-, rə-)	ləjɔŋ ʔəjɔŋ rəjɔŋ	sɔoʔjoʔ	lajuəŋ	rainbow

As typed in bold, the single middle vowels [ε, e] for most dialects of WL tend to vary in higher vowels [e, ei, i] in NL and vowel cluster [ai] in EL. The vowel [e] and vowel cluster [ei] of NL may be suspiciously different phonemes in contrast in analogous environments. For examples, (1) [ʔɛi] “eye” contrasts with [ʔɛ] “twenty” and (2) [saŋeʔ] “sun” contrasts with [saŋei] “far”. The low back vowel [ɔ] in WL becomes [ɔ, uə] in EL and [y, yə, əu] in NL. The high front rounded vowel [y] in NL may soon be introduced as a newly discovered phoneme of Lawua. Further studies are required.

The single high back rounded vowel [u] in WL tends to become either a single mid high back rounded vowel [o] or vowel cluster [uə] in EL and in NL. However, the vowel [u] does not necessarily vary in some other words as in [puk ~ p^huk] “to tie” and [pu ~ p^hu] “thick” of WL, [puk] and [pu] of EL, and also [puk] and [pu] in NL. The high back rounded vowel [u] which is followed by a velar or glottal consonant [k, ʔ, ŋ] in close syllables tends to vary among WL dialects in that it becomes [o] in three dialects i.e., PP, CM, and UP, but becomes either [u, o] in D.

Diphthongs

The Lawua vowel clusters are quite complex. Phonetically, there are 26 vowel clusters which are phonologically reduced to 14 vowel clusters in bold as shown in the phonetic chart of Lawua vowel clusters below.

Chart 3.

Fronting \ Height	Front	Central	back
High	iə yə iɛ ia	ɪə	ui uə ue uə uɛ ua
Mid	ei eo	əɪ əu əo	oi
Low	ɛo	ai aɪ au ao aɛ aɔ	ɔi ɔo ɔɛ

Notes: The vowel clusters which are not typed in bold may appear to be variants of a bold one, e.g., [aɪ] may vary between [au ~ ai ~ ɔi ~ ɔɛ] as in [maɪh] “nose” in D, P, PP, CM, and BL, but [mai] in LU and KL, and [maus] in OP.

Table 10.

The Variation of [ei, uə, ai] in WL, EL, and NL Dialects

	WL	EL	NL	Meaning
ei	ʔeɪŋ ~ ʔəɪŋ	ʔəɪŋ	ʔiŋ	to return
uə	suək ~ hjuək	lasuək	sɪk	ears
	c ^h uəŋ	cəuŋ	cɪŋ	foot
	m ^h buək	m ^h buək	mɪk	to stab
	rəjuə	khləiʔ	lajɪ	gibbon
	ʔjuəŋ	ʔjuəŋ	jɪŋ	village
	rəŋguəŋ	muən	laŋŋ	pillow
ai	k ^h rai ~ k ^h rɛ ~ k ^h jai	k ^h ria	k ^h rei	gold
	ʔŋai ~ ʔŋɛ	(ta)ʔia	ʔŋei	eye
	səŋai (səŋaɛ)	saŋia	saŋei	far

	kənai ~ kanaɛ	kanai	kanei	in
	ʔmai ~ ʔmaɛ	ʔmia	ʔmei	and/with
	ʔɛh ʔaɛh~ʔaih	ʔiah	tɔi	to take

The vowel cluster [ei] may become [əi] in WL and EL, but reduced to [i] in NL. The vowel cluster of [uə] which is followed by a velar final consonant in WL and EL will become a single vowel [ɪ] in NL. The cluster [ai] in most dialects of WL (except LU) becomes [ia] in EL and [ei] in NL.

Triphthong

Phonetically, there appears only one three-vowel cluster (triphthong) in Lawua which is [iəu]. However, it is analyzed to be a variant of [əo] vowel cluster phonemically, i.e. [həo] ‘go/walk’ in LU, P, and BL becomes [hiəu] in CM and UP, and [həu] in D and PP whereas [hao] in NL.

DISCUSSION AND CONCLUSION

The Lawua presyllables can be classified into two classes: the first presyllable which rightly prefixes the main syllable in sesquisyllables (disyllables) and the second presyllable which rightly prefixes the first presyllable in trisyllables. The first presyllables vary between [rə~lə~ ʔə~ ʔa~ la~ ra]. The second presyllables vary between [pə~ pu~ pi]. They are only followed by [rə, ʔa, la] first presyllables and found only in LU, P, BL, and KL in rare words. The [pə, pi] second presyllables may function as a grammatical marker to represent “human being” or “person being” while [pu-] indicates “being younger of age”.

The study also shows that there are a great number of consonantal variations in Lawua from which can be concluded that archaic language forms are likely to remain in western dialects and there is the simplification of the articulation of consonants in the eastern dialect as well as Thai-borrowed words are usually found therein. In terms of vowel variation, the high front rounded vowel [y] is found in the northern dialect which can stand alone as a monophthong in open syllables or in close syllables when it is followed by a velar [ʔ] or a nasal [m]. It would become a vowel cluster [yə] when it is followed by a velar nasal [ŋ]. The low central vowel [a] represents [ɐ] as of the Standard Thai in [mɛɐ³³] “to come” because it is not as much lower as in British English. Since this symbol is simpler to type, so it is chosen for this study. However, it may be concluded that the Lawua vowels vary in two extremes that: (1) high and advanced front vowels are more frequently found in the northern dialect, and (2) vowel clusters (diphthongs) are more frequently found in the western and the eastern dialects and single vowels are more frequently found in the northern dialect.

SUGGESTIONS

The researcher would like to suggest for further studies that (1) the variation of the Lawua presyllable is still in doubt as it varies freely or by some other social factors, (2) the final [-s] is a very interesting variable to be profoundly studied in OP dialect, and (3) the high

front rounded vowel [y] in KL is supposed to be the new vowel in its system so the study of the phonology of KL Lawua dialect is recommended.

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APPENDICES

Appendix 1.

Language Informants

No.	Name	Aged	Dialect	Occupation
1	Phiboon Kraiwanwimolsiri - Boon	25	LU	Factory worker
2	Chantra Charoentempiem - Beau	22	LU	CMRU student
3	Rungthiwa Pae-amnart - Note	18	LU	Kawila school student
4	Netchanok Laokham - Mint	22	BL	CMRU
5	Chamchulee Thaicharoen - Tang	23	BL	Housewife
6	Onanong Kwanyuthaworn - Phueng	22	KL	CMRU student
7	Thawanya Khamthi - Lep	22	KL	CMRU student

Appendix 2.

Acronyms and Abbreviations Used

Uppercased Acronyms and Abbreviations	Lowercased Abbreviations
AA = Austroasiatic	asp= Aspirated
BL = Bo Luang village/dialect	av= Alveolar
C = Consonant	bb = Bilabial
CM= Chang Mo village/dialect	gt= Glottal
CT= Central Thai language	lbd= Labio-dental
D = Dong village/dialect	lbv= Labial-velar
EL= Eastern Lawua	pgt= Pre-glottalized
KL= Kok Luang village/dialect	pl= Palatal
LP= La Up village/dialect	pns= Prenasalized
MA= Manners of Articulation	uasp= Unaspirated
MSEA= Mainland Southeast Asian	vd= Voiced
NL= Northern Lawua	vl= Voiceless
NT= Northern Thai language	vlr= Velar
OP= Omphai village/dialect	
P= Phae village/dialect	
PA= Parts of Articulation	
PP= Pa Pae village/dialect	
SL= Southern Lawua	
V= Vowel	
WL= Western Lawua	

INTELLIGIBILITY AMONG LAWUA DIALECTS

by

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ABSTRACT

This paper is a comparative analysis of lexical similarity among eight Lawua dialects of the three Lawua regions of Chiang Mai and Mae Hong Son provinces: (1) the western, (2) the eastern, and (3) the northern. Its aim is to explore the degrees of the intelligibility between these dialects. The analysis is based on the degree of phonetic similarity and sound correspondences primarily in the adaptation of the measure of lexical similarity (Le, 2003). Data analyzed are 102 out of 118 weight three words from Mainland Southeast Asian Comparative wordlist for lexicostatistic studies (Mann, 2004). The results reveal three aspects: (1) six western Lawua dialects have degrees of mutual intelligibility by 90s percentages, (2) eastern dialect has the value of 80s percentages, and (3) northern dialect has degree of comprehending La Up dialect by 83 percentage and comprehension with others by 70s percentages.

KEY WORDS: Lexical similarity, intelligibility, comprehension, Lawua, dialect

INTRODUCTION

Lawua is genetically an Austroasiatic (AA) language. It belongs to Palaungic branch of Mon-Khmer family and is particularly spoken in Thailand's Mae Hong Son and Chiang Mai provinces (Premsrirat, 2006). Mae Hong Son Lawua is found in two districts—Mae La Noi and Mae Sariang. Chiang Mai Lawua settles around in two districts as well—Mae Chaem and Hot. Mitani (1965) and Kauffman (1972) categorize Lawua spoken in these two provinces into two major Lawua dialects: (1) Western Lawua (WL) dialect in Mae La Noi and Mae Sariang of Mae Hong Son province, and in Mae Chaem district of Chiang Mai province, and (2) Eastern Lawua (EL) in Hot district of Chiang Mai. Culturally rather than linguistically, the WL is also categorized into two sub-dialects: (1) the southern (SL), and (2) the northern Lawua (NL) dialects. In any case, the EL is phonologically different from the WL, so mutually unintelligible (Lipsius, n.d.). These two main Lawua dialects are quite different from each other (Mitani, 1965) and the villages of more than one day's walk apart speak mutually unintelligible dialects (Kunstadter, 1969).

Intelligibility of Lawua between these dialects was first investigated by Nahhas (2011) as a part of the sociolinguistic survey of Lawua (Lawa) in Thailand. The author analyzed four Lawua varieties: (1) Bo Luang (BL), (2) Omphai (OP), (3) La-up (LU), and (4) Phae (P) dialects using at least 85 of the 118 weight three words from Mann (2004) and most data were originally from the work of Mitani (1972) and other different sources. If one compares Lawua wordlists from previous literature, it shows lexical similarity percentages are

above 70 percent, meaning that intelligibility is possible. Actually, the four Lawua varieties share lexical similarity percentages of higher than 90 percent, an indication that their mutual intelligibility is really high.

To further the study of mutual intelligibility or understanding among Lawua dialects of northern Thailand in more detail and to introduce a new method of classifying Lawua dialects into proper groups, this study on lexical similarity among Lawua dialects takes a different approach in collecting and analyzing data. The research findings may be conducive to the mapping of Lawua of Thailand and further work on language development.

LITERATURE REVIEW

Brief History

Lawua prehistory has actually still been unknown because Lawua archaeology has never been done. In *From Lawa to Mon, from Saa' to Thai* (1990), it has generally been believed that the Lawua was an ethnic group whose people spoke a Mon-Khmer language and settled hundreds years ago in the basins of Ping River and around in what now are called Chiang Mai and Mae Hong Son provinces. The end of the Lawua kingdom came in the seventh or eighth century when they were defeated in a battle by the Mon led by Chamedevi (angel of the Cham) queen of Lamphun kingdom, who descended from Lopburi. The Lawua were forced to flee mainly to the mountains and hills of Chiang Mai and Mae Hong Son provinces. The Mon had been ruling the land of Lawua for hundreds years before it was invaded by the Thai forces around in the 13th century. Driving out the Mon, the Thai established relations with the Lawua who in turn have strengthened their relation to the Thai kingdom since then (*The Lawa from Minority Groups in Thailand*, n.d.).

Ethnicity and Language

Naming Lawua language and its speakers have confused many linguists for decades. The WL have called themselves prestigiously “Lawa” as some linguists (Bradley, 1981; Ratanakul, 1984; Nahhas, 2011) and Thai majority do and this may be because such name distinguishes their language and people from “Lua” which is another name for Lawa and is a common name for the EL, but not for the WL since it sounds a stigmatized word for “any small language spoken by other ethnic groups in Thailand”. In fact, both names are given by outsiders to the Lawua that means “Lawua man”. For this study, Lawua refers to the “northern Lawa” or “northern Lua” of Thailand as it sounds ethnically neutral and reflects those people who speak that language better. However, both Lua and Lawa are also the names that are used to consider some other ethnic groups as shown in the table 1 below.

Table 1.

The Identification of Lawua (Lawa, Lua)

Place	To Be Called	Ethnicity	Language	Linguistic Group
Chiang Mai (Hot, Mae Chaem) /Mae Hong Son (Mae La Noi, Mae Sariang)	Lua, Lawa	Lawua ^a , Lavua ^b , Lavɔʔ ^c	Lawua, Lavua, Lavɔʔ	Mon-Khmer, Palaungic
Nan province	Lua	Mal/Pray/(Kha) Thin ^d	Lemal/Pray/(Kha) Thin	Mon-Khmer, Khmuic
Kanchanaburi, Suphanburi, Uthai Thani	Lawa, Lua	Ugong ^e	Gong	Tibeto-Burman, Burmish-Lolo
Nakhorn Ratchasima (Korat), Petchabun	Lawa	Chaobon ^f (-bun)	Nya(h)kur	Mon-Khmer, Monic
Chiang Mai (Mae Rim)	Lua, Lawa	Khalo, Phalo ^g	Khalo, Phalo	Mon-Khmer, Palaungic ^h
Chiang Rai (Wiang Pa Pao)	Lua	Khamet ⁱ	Khamet	Mon-Khmer, Palaungic
Chiang Rai	Lua, Lawa	Bisu ^j	Bisu	Tibeto-Burman, Loloish

Notes. a refers to this study.

b refers to Premsrirat (2006).

c refers to Suwangard (2007).

d refers to Rattanakul (1984).

e refers to Thawornpat (2006).

f refers to Petchabunburi (1921), Seidenfaden (1918) and Rattanakul (1984).

g, h refer to Flatz (1970).

i refers to Bradley (1981), Thomas and Headley (1970), Charoenma (1982).

j refers to Nishida (1973).

RESEARCH METHODOLOGY

Word Selection

Lawua data were primarily based on the 102 item wordlist under the word selection criteria as follows: the selected words should have been (1) core or basic vocabulary items, (2) relevant to cultures, nature and climate of the speech community, (3) not borrowed words, (4) not compound words, (5) not too general nor abstract, and (6) not taboo words. The number of words for this list was limited to 102 lexical items, given that the greater number of items does not necessarily insure greater accuracy or reliability and the more commonly used 100-200 items are best recommended (Mann, 2004). So, the researcher decided to select 102 lexical items from 504 overall items to analyze Lawua lexical similarity.

Data Collection

Lawua raw data on eight dialects for linguistic comparison were derived from different sources as follows: (1) the data on LU, BL, and Kok Luang (KL) dialects were derived from the personal interview of seven Lawua informants (i.e., two from LU village, three from BL village, and two from KL village), (2) the data on P dialect were derived from the work of Komonkitiskun (1985), and (3) the data on Dong (D), Chang Mo (CM), Pa Pae (PP), and Omphai (OP) from the work of Yai Sa-nga (1985).

There were some criteria for informant selection: (1) they had to be native Lawua of the given dialect, (2) they had not lived outside their community for over 10 years' time, (3) they had to be both physically and mentally healthy, and (4) they should have been bilingual or multilingual at least with the ability of understanding Standard Thai and/or Northern Thai (Regional Thai) to facilitate the interview.

CONCEPTUAL FRAMEWORK

Lexical Similarity

Lexical similarity (Ethnologue, 2017)¹ refers to the similarity in both form and meaning of two language varieties determined by a set of wordlists in comparison and linguistic forms and it is an indicative measure of the mutual intelligibility of two dialects by the degree of the phonetic similarity of a percentage higher than 85. Commonly, this measure is used to determine the degree of genetic relationship between languages or dialects for the benefits of the development of language trees in lexicostatistic studies or it is used to determine appropriate dates when languages split from their proto-language in glottochronology.

The lexicostatistic way of determining if two language forms are lexically similar or cognate or not is called the “inspection method”—the best guesswork of the inspector’s own. If those two forms seem to look similar or cognate, then ‘yes’ can be given, but if they don’t, then ‘no’ is given as judgement indicators as Crowley (1992:183 as cited in Le, 2003:26; Burusphat, 2017: 125) argues that “*Lexicostatisticians in fact tend to rely heavily*

¹ Simons and Fennig (Eds.). (2017). *Ethnologue: Languages of the World, Twentieth edition*. Dallas, Texas: SIL International. Retrieved from <http://www.ethnologue.com>

on what is often euphemistically called the inspection method of determining whether two forms are cognate or not in a pair of languages. What this amounts to is that you are more or less free to apply intelligent guesswork as to whether you think two forms are cognate or not. If two forms look cognate, then they can be given a 'yes' score, but if they are judged not to look cognate, then they are given a 'no' score."

The lexical similarity here is not for either of lexicostatics or glottochronology. In this case, it aims to determine the mutual intelligibility of Lawua dialects spoken in the three regions of Chiang Mai and Mae Hong Son provinces and the selected method of determining whether the two dialectal lexemes are similar or not is Blair's (1990) method of lexical similarity.

Blair's Method

For this study, the measure of lexical similarity is adapted from Le's adaptation of Blair's method for his purpose of searching for Mon-Khmer cognates. One feature from Le's measurement of Mon-Khmer lexical similarity is that the main syllable of a word is the key, but the minor (or pre) syllable of a sesquisyllabic word is always unstressed so it is not important to compare the presyllables. The adaptation of Blair's method or criteria for lexical similarity (phonetic similarity) is as follows:

Category 1: (a) exact matches, (b) vowels differing by one feature: e.g., [i] ≠ [e], (c) phonetically similar segments in three or more word pairs (regular sound correspondences)

Category 2: (a) phonetically similar consonants: e.g., [b] - [m], (b) vowels differing by two or more features: e.g., [a] ≠ [u]

Category 3: (a) non-phonetically similar consonants, (b) correspondence to nothing

Disregard: (a) vowel length, (b) pitch distinctions, (c) pre-syllables and non-root syllable, (d) inter-consonantal [ə], (e) initial, intervocalic, and final [h], (f) any deletion.

Exception: (1) the schwa [ə] here is regarded to be equal to [e, ε, o, ɔ] by height of tongue (close mid-open mid feature), (2) the open front unrounded [a] is regarded to be equivalent to the open central unrounded [ɐ] (ɐ Thai).

Blair used three word-examples from Mann (2002 cited in Burusphat, 2017: 127 - 128) to display the segmental comparisons as follows in table 2 below.

Table 2.

Example of Words for Lexical Comparisons

Dialect A	Category	Dialect B	Meaning	Judgement
s e r a n	s – s ¹ is categorized 1(a) e – i is categorized 1(b) r – l is categorized 1(a) a – a is categorized 1(a) n – ŋ is categorized 1(c)	s i l a ŋ	sun	lexically similar
t i n	t – t is categorized 1(a) i – o is categorized 2(b) n – ŋ is categorized 1(c)	t o ŋ	moon	lexically similar
k a n o	k – l is categorized 3(a) a – a is categorized 1(a) n – ŋ is categorized 1(c) o – ø ² is categorized 3(b)	l a ŋ	star	lexically dissimilar

Notes. This table is adapted from Blair's (1990 as cited in Burusphat, 2017: 128) examples of segment comparisons (in Thai)

So as to categorize the compared segments, one also needs to study Blair's "phone table" for one to five segments. The table 3 below shows Blair's phone table.

¹ indicates that the former "s" is the first segment in Dialect A's "seran" word whereas the later "s" is the first segment in Dialect B's "silar" word

² hereby is nought or nothing

Table 3.

Blair's Phone Table

Segments	Category 1	Category 2	Category 3
1	1	0	0
2	2	0	0
3	3	0	0
3	2	1	0
4	4	0	0
4	3	1	0
4	3	0	1
4	2	2	0
4	2	1	1
5	5	0	0
5	4	1	0
5	4	0	1
5	3	2	0
5	3	1	1

Notes. Categories 1, 2, and 3 should be referred to table 4 below as for example The table 3 above shows the possible combinations of segments that point to a conclusion of lexical similarity and any of these combinations which does not appear in the table could not be judged lexically similar. Hence, the first two of three example word pairs in comparisons in table 2 could be judged lexically similar because they meet two criteria of lexical similarity judgement: a) at least 50 percent of the segment pair in comparison appear in Category 1 and, b) at least 75 percent of the segment pair in comparison appear in Category 1 and Category 2. Please see table 4 below for your reference.

International Phonetic Alphabet (IPA revised to 2015)

Since the Blair's method of lexical similarity has involved the International Phonetic Alphabet or IPA symbols, the two IPA charts (i.e., the consonant chart, and the vowel chart) then are needed (please visit <https://www.internationalphoneticassociation.org>) for the phonetic representation of Lawua language in this study.

DATA ANALYSIS

In order to analyze lexical similarity, an adaptation of phone table for minimum lexical similarity (Blair, 1990) was also required as in the table 4 below.

Table 4.

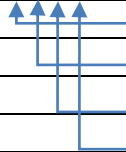
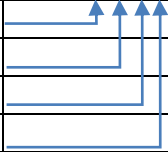
Minimum Lexical Similarity Formula

Phones	Similarity	Category I	Category II	Category III
1	=	1	0	0
2	=	2	0	0
3	=	2	1	0
4	=	2	1	1
5	=	3	1	1
6	=	3	2	1
7	=	4	2	1
8	=	4	2	2

This is how to analyze word pair if the pair is phonetically similar. (1) At least half of all the segments compared meets the Category 1 criteria and (2) at least three fourth of all the segments compared meet the Category 1 and Category 2 criteria. Consider the following examples in the table 5 below.

Table 5.

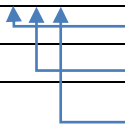
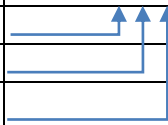
How to Analyze Lawua Word Pair (Example 1)

How to Analyze Similar Word Pairs (Example 1)				
No.	Gloss	LU	Category	D
1.	white	p i ŋ		p u i ŋ
			Category 1(a)	
			Category 2(b)	
			Category 3(b)	
			Category 2(a)	
Value Summary			1 2 1	Lexically dissimilar

The table 5 shows that there are four phones (sounds) to be phonetically compared in “white” word pair. Each phone is categorized following the above criteria for lexical similarity. It is clear that [piŋ] and [puɪŋ] do not meet the minimum lexical similarity so it makes them to be lexically dissimilar.

Table 6.

How to Analyze Lawua Word Pair (Example 2)

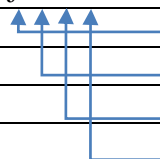
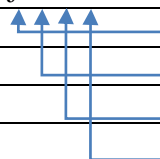
No.	Gloss	CM	Category	KL
2.	to vomit	h a u		h ɔ
			Category 1(a)	
			Category 2(b)	
			Category 3(b)	
Value Summary			1 1 1	Lexically dissimilar

The table 6 shows that there are three phones (sounds) to be phonetically compared for “to vomit” word pair. Each phone is categorized following the above criteria for lexical similarity.

larity. It is clear that [hau] and [hə] do not meet the minimum lexical similarity so it makes them not to be lexically similar.

Table 7.

How to Analyze Lawua Word Pair (Example 3)

No.	Gloss	P	Category	PP
3.	to laugh	ɲ u ɛ h		ɲ ɪ ə h
			Category 1(a)	
			Category 2(b)	
			Category 1(b)	
			Disregarded	
Value Summary			2 1	Lexically similar

The table 7 shows that there are four phones (sounds) to be phonetically compared for “to laugh” word pair. Each phone is categorized following the above criteria for lexical similarity. It is clear that [ɲueh] and [ɲəh] meet the minimum lexical similarity so it makes them to be lexically similar.

However, the inspection method or “sense method” may bring differing results from lexical comparison work as those of Diffloth (1980 as cited in Nahhas, 2011) in which it seems apparent that Diffloth’s percentages appear to be exaggeratedly high. Consider the following examples in the table 8 below.

Table 8.

Results from the Inspection Method Use and from ‘Blair Method’ Use

No.	Gloss	CM	KL	Inspection method	Blair’s method	Result
1	to fly	piəu	poi	yes	no	opposite
2	night	saum	(lan)chaom	yes	no	opposite
3	horn	ʔrəŋ	raoŋ	no	yes	opposite
4	white	phiəŋ	piŋ	no	yes	opposite

FINDINGS

The table 9 below shows the percentages of lexical similarity among the eight Lawua dialects.

Table 9.

The Percentages of Lexical Similarity among the Eight Lawua Dialects

		WL						EL	NL
WL	LU	LU							
	P	99	P						
	D	95	97	D					
	PP	97	98	100	PP				
	CM	97	98	98	97	CM			
	OP	94	98	97	97	100	OP		
EL	BL	88	87	88	90	88	87	BL	
NL	KL	85	86	84	85	82	83	83	KL

The percentages of mutual intelligibility among six WL dialects as indicated by the percentages of lexical similarity vary from 94 to 100 where LU dialect is the least mutually intelligible to OP dialect. There are two dialect pairs that claim the most mutual intelligibility which are D and PP dialects and CM and OP dialects. The BL has lower percentage of mutual understanding to WL rated 87–90 while KL has lower percentage than BL rated 82–86.

The table 10 below shows the average percentages of mutual intelligibility among Lawua groups.

Table 10.

The Average Percentages of Mutual Intelligibility among Lawua Groups

No.	Mutual Intelligibility	Average Percentage
1	Western Lawua	98
2	Eastern Lawua (Bo Luang) to Western Lawua	88
3	Northern Lawua (Kok Luang) to Western Lawua	84
4	Eastern Lawua (Bo Luang) to Northern Lawua (Kok Luang)	83

According to Ethnologue's measure of (inherent) intelligibility on lexical similarity, the value of lexical similarity of 85 percent and less signals the less understanding of other languages or dialects. Contrastingly, the higher value of such point indicates ease of understanding those dialects. The lower the more difficult. In the same way, the SIL's survey team led by Nahhas (2011) refers to the possible value of inherent intelligibility and of the same languages to 70 percent of lexical similarity.

It is evident that all WL dialects are highly mutually intelligible among themselves given value higher than 90 percent of lexical similarity. BL of the EL can easily understand other varieties of the WL and vice versa. KL of the NL might face more difficulty understanding of other varieties with its lower average percent similarity being less than 85.

DISCUSSION AND CONCLUSION

The tabulated percentage figures reveal Lawua mutual intelligibility by using Blaire's method of measuring lexical similarity and the result may get along well with Nahhas's (2011, p. 16-17) study of lexical similarity between Lawa varieties (Bo Luang, Omphai, La-up, and Phae) as a part of Sociolinguistic Survey of Lawa in Thailand to determine whether any additional wordlists should be collected and to screen for lack of intelligibility. Nahhas yielded that all lexical similarity percentages were much higher than 70 percent (the lowest value of possible intelligibility). In fact, they were all above 90 percent and some varieties were intelligible 100 percent (Bo Luang – Omphai, Bo Luang – Phae, and Omphai – Phae).

It can be more interesting to look at the relationship between understanding and perception of dialects. To determine dialect perception in LU variety by using other methods such as interviews (individual or group) as referred to Table 23 – Dialect perceptions in La-up of Nahhas's (2011, p. 115) work, the results could be so much lower that language similarity other than comprehension (e.g., vocabulary, accent, etc.) was rated by subjects' "sense of the same." For example, the percent of similarity of CM dialect with LU dialect was as low as 75 explaining that some words and accent were different and children might have understood less due to less contact. Surprisingly, BL comprehension of the LU variety (p. 116) was lower than that at 50. The perceived reason was "self-determination" since they did not change their speech to be like the other. Interestingly, the KL variety was 10 percent lower than that of BL because of different vocabulary.

The researcher found that using Blair's method as the base for lexical similarity disclosed that different word, accent and other features as mentioned in Nahhas's work could be only one feature in Category 1(c) as stated "*phonetically similar segments which occur consistently in the same position in three or more word pairs*" or called in short "regular sound correspondence". In fact, there are so many of regular sound correspondences in Lawua of different regions even of the same region (WL) and these will be explained in the study of "Dialectal Variation of Lawua Language in Chiang Mai and Mae Hong Son Provinces".

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APPENDICES

Appendix 1: List of Language Informants

No.	Name	Aged	Dialect	Occupation
1	Phiboon Kraiwanwimolsiri	25	LU	Factory worker
2	Chantra Charoentempiem	22	LU	CMRU student
3	Rungthiwa Pae-amnart	18	LU	Kawila school student
4	Netchanok Laokham	22	BL	CMRU
5	Chamchulee Thaicharoen	23	BL	Housewife
6	Onanong Kwanyuthaworn	22	KL	CMRU student
7	Thawanya Khamthi	22	KL	CMRU student

Appendix 2: List of Acronyms Used

Uppercased Acronyms

AA = Austroasiatic
BL = Bo Luang village/dialect
C = Consonant
CM= Chang Mo village/dialect
D = Dong village/dialect
EL= Eastern Lawua
KL= Kok Luang village/dialect
LP= La Up village/dialect
MA= Manners of Articulation
NL= Northern Lawua
OP= Omphai village/dialect
P= Phae village/dialect
PP= Pa Pae village/dialect
SL= Southern Lawua
V= Vowel
WL= Western Lawua

FROM BREXIT TO ASEAN: NO ROOM FOR COMPLACENCY

by

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ABSTRACT

On Thursday, 23rd June 2016, Britain has voted in a historic referendum to withdraw her membership of the European Union (EU). A surge in EU migrants coming to Britain was seen as a major cause of Brexit. This paper argues that the real reason for Brexit was the failure of political elites to communicate the importance of Britain being part of the EU to ordinary people. Apart from the EU, Brexit can surely give the Association of Southeast Asian Nations (ASEAN) some lessons to learn. For instance, a survey on ASEAN awareness highlighted that most people from some major ASEAN member states (e.g., Singapore) are unaware of ASEAN's current development and are somewhat ambivalent about regional integration. These reflect the absence of effective communication between the elites and the people in ASEAN, and there should be no room for complacency. This article suggests strategic plans for raising ASEAN public awareness of regional integration.

KEY WORDS: ASEAN, Brexit, economic integration, regional integration, political communication

INTRODUCTION

On Thursday, 23rd June 2016, Britain has voted in a historic referendum to withdraw her membership of the European Union (EU). This means Britain will become the first EU member state to leave the Union in its current form (Witte, Adam, & Balz, 2016). The referendum result did not just infuriate those people who wanted Britain to remain part of the Union but it also divided British society. Following the announcement of the referendum result, numerous young voters have directed their frustration at older generations.¹ For example, one of the young voters has tweeted, "Today an older generation has voted to ruin the future for the younger generation. I'm scared" (Boult, 2016).

During the referendum campaign, mass EU migration into Britain was a subject of considerable debate. The leading figures of the leave camp² galvanized support for voting to leave the EU by highlighting detrimental effects of a surge in EU migrants working in Britain. These people claimed that uncontrollable migration harmed British jobs and wages and also put pressure on the National Health Service (NHS) (UK House of Commons [HC], Treasury Committee, 2016). In response to this, the remain camp³ has accused the leave camp of scaremongering over EU migration as, in reality, EU migrants have also contributed quite significantly to British economy (UK HC, Treasury Committee, 2016). A surge in EU migrants coming to Britain was seen as a major cause of Brexit.⁴

In the aftermath of Brexit, many government officials, economists, journalists and academics all over the world have reacted with alarm about possible impacts of Brexit up-

on the Association of Southeast Asian Nations' (ASEAN) economic integration project—ASEAN Economic Community (AEC). Some people even warned that ASEAN should approach the AEC project with caution to avoid a repeat of Brexit (Wong, 2016). However, ASEAN is different from the EU. Thus, people should not draw a comparison between ASEAN and the EU and become overly concerned for the future of ASEAN (Wong 2016). That said, Brexit can be a wake-up call for ASEAN (Listtiyorini, Roman & Rahadiana, 2016).

This paper analyses the Brexit result from a different angle and argues that the real reason for Brexit was the failure of political elites to communicate the importance of Britain being part of the EU to ordinary people. It then examines whether, in the context of ASEAN, the absence of effective communication between the elites and the common people in ASEAN about importance of regional integration can also be detected. Finally, this paper suggests a number of strategic plans for raising public awareness of ASEAN integration in the region.

DISCUSSION

The European Union and Brexit

The European Union (EU) was created in 1950. It is a regional organisation that “sits between the fully federal system found in the United States and the loose, intergovernmental cooperation system seen in the United Nations” (European Commission [EC], 2013). To date, the EU comprises of 28 member states (including Britain), and a combined population of over 500 million (EC, 2013).

Important decisions are made at the EU level by four institutional bodies, namely the European Parliament, the European Council, the Council and the European Commission. The European Parliament is a democratic parliament as Members of the European Parliament (MEPs) are directly elected by citizens of each and every member state. The European Parliament therefore represents the people of 28 member states. The European Council consists of the heads of member states and is responsible for the general political direction of the EU. The Council is acting on behalf of the governments of the EU. The European Commission has a general function of proposing new legislation and looks after the interests of the EU as a whole (EC, 2013).

One of the fundamental principles of the EU is ensuring the creation and existence of a single common market in the European economic area. To this end, EU member states have come to an agreement that free labor mobility is prerequisite and that any obstacles (e.g., physical borders) to free movement of persons should be abolished (EC, 1985). It was “the conclusion of the two Schengen agreements, i.e. the Agreement proper of 14 June 1985, and the Convention implementing the Schengen Agreement, which was signed on 19 June 1990 and entered into force on 26 March 1995” that ultimately actualized freedom of movement in the European economic area (Marzocchi, 2017). Crucially, the Schengen Agreement not just permits EU citizens to travel freely within the territories of member states but also allows them to work and reside in any member states visa-free (Marzocchi, 2017).

Britain obtained membership of the EU (formerly the European Community (EC)) when it signed the Treaty of Accession in 1973. However, in 1975, due to an increased level of public skepticism of the EU in Britain, a referendum which gave people a choice whether to carry on being part of the EU was held. Over the course of that referendum, those people who wanted to leave the Union raised a downturn in British economy as a major cause for resigning the country's membership of the EU. The 1975 referendum result was that 67 per cent of the voters had rejected to leave the Union (Dhingra, 2016).

Euroscepticism had not been silenced in the 1975 referendum. Research findings also suggested, "Public support for European integration in Britain has always been lukewarm at best" (Hooghe & Marks, 2007). Four decades later, another referendum on Britain's EU membership was held in 2016. As noted above, this time the leavers have presented the issues of mass EU migration into Britain to galvanize public support for a leave vote. Various reasons of what caused Brexit have already been outlined intensively by many people through various means; nevertheless, the analysis in this paper is that the real reason led to Brexit was a lack of effective communication between British political class and ordinary people about the importance of Britain being part of the EU. Why so?

It could be argued that, over the course of the EU referendum campaign, the people from the remain camp including Cabinet ministers obsessively focused on striking fear into the heart of British people. More precisely, they repeatedly warned the people about the consequences of Britain being outside the EU but failed to pay attention to educating those people who are unaware of or are ambivalent towards the Union. For instance, then British Prime Minister David Cameron claimed that Britain would become more vulnerable to transnational crime like terrorism, he said, "If we stay in a reformed EU, you know what you get—a border in Calais and vital information about criminals and terrorists travelling around Europe" (Swinford, Foster, & Samuel, 2016).

In addition, the former British Chancellor of the Exchequer George Osborne also emphasised how Brexit would be calamitous to the economy as he said the following:

Put simply: over many years, are you better off or worse off if we leave the EU? The answer is: Britain would be worse off, permanently so, and to the tune of £4,300 a year for every household. (Watt & Treanor, 2016)

Throughout the referendum campaign, little has been done to get a positive message across to the voters. Apparently, the points about how young people would gain benefit from travelling and studying abroad, how medical and social researchers would gain benefit from research funding that helps improve the quality of life in Britain, how European Court of Human Rights (ECtHR) help protect people's rights and how Britain would still be able to attract foreign investment if it was to stay in the EU, were not sufficiently stressed.

More importantly, the survey findings by Ipsos Mori (2016) revealed that a sizable proportion of British people do not understand how the EU works, many of them do not even know that Members of the European Parliament (MEPs) are elected. In addition, a number of studies in the past also demonstrated that ordinary people felt that their opinions and concerns about some policies were ignored (Hooghe & Marks, 2007). For instance, ordi-

nary people had not been consulted directly or indirectly about the opening up of the UK borders to EU migrants (Watt & Wintour, 2015). Finally, the British political class also failed to explain to the people that regional integration is not a one-way street; in reality, it involves “give” and “take” (Ha, Thuzar, Das & Chalermpananupap, 2016).

All of this is indicative of a lack of effective communication between political elites and ordinary people in Britain about the EU as an institution, how does it work for Britain and Europe, and the importance of Britain being part of it.

Brexit Lessons for ASEAN

In 1967, the Association of Southeast Asian Nations (ASEAN) was founded by five member states, namely Thailand, Malaysia, Indonesia, the Philippines and Singapore. The founding of ASEAN was very much against the backdrop of a rich diversity of political, cultural and economic circumstances in the region (Severino, 2008). The aims and purposes of ASEAN are as follows:

- To accelerate the economic growth, social progress and cultural development in the region...;
- To promote regional peace and stability through abiding respect for justice and the rule of law in the relationship among countries of the region ...;
- To promote active collaboration and mutual assistance on matters of common interest in the economic, social, cultural, technical, scientific and administrative fields;
- To provide assistance to each other in the form of training and research...;
- To collaborate more effectively for the greater utilization of their agriculture and industries, the expansion of their trade...;
- To promote South-East Asian studies; and
- To maintain close and beneficial cooperation with existing international and regional organizations.

(The ASEAN Declaration (Bangkok Declaration) 1967)

The institutional operation of ASEAN during its infancy depended upon collective decision-making of Foreign Ministers from member states during the Annual Ministerial Meeting (AMM) whilst the work of ASEAN was propelled by the so called “Standing Committee” presided over by the Foreign Minister from the member state hosting the AMM (Chng, 1990). In 1976, Treaty of Amity and Cooperation in Southeast Asia was signed by ASEAN member states, the emphasis of this signing was the promotion of peace and stability in the region. Article 2 of the Treaty sets out that in maintaining the relationships between member states, the following principles are fundamental:

- Mutual respect for the independence, sovereignty, equality, territorial integrity and national identity of all nations;
- The right of every State to lead its national existence free from external interference, subversion or coercion;
- Non-interference in the internal affairs of one another;
- Settlement of differences or disputes by peaceful means;
- Renunciation of the threat or use of force;
- Effective cooperation among themselves.

It was not until 1976 that the ASEAN Secretariat was introduced as “a central administrative organ to provide for greater efficiency in the coordination of ASEAN organs and for more effective implementation of ASEAN projects and activities” (Agreement on the Establishment of the ASEAN Secretariat, 1976).

Then, ASEAN’s institutional structure underwent major reforms in 1977 as ASEAN member states unanimously agreed that regional stability and political freedom of Southeast Asia could solely be underpinned by economic development. Thus, heads of government have been given a role in making decisions whilst economic ministers were also entrusted to take part in the operation of ASEAN. The reforms eventually shaped ASEAN to become an intergovernmental association (Chng, 1990). Acharya (1997) highlighted that the key feature of ASEAN since then is that the cooperation between member states has always been in the form of “informality and the related avoidance of excessive institutionalization” (p. 329). Article 7 of the 2007 ASEAN Charter prescribes that:

1. The ASEAN Summit shall comprise the Heads of State or Government of the Member States;
2. The ASEAN Summit shall:
 - (a) be the supreme policy making body of ASEAN;...

ASEAN’s approach to the cooperation of its member states, as yet, remains unchanged. To date, ASEAN is comprised of ten member states, namely Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam. ASEAN has a combined population of approximately 622 million which made the association the third largest labor force and the seventh largest economy in the world (ASEAN Secretariat, 2015). In 2007, ASEAN has introduced its own Charter with a view to creating ASEAN economic community (AEC) by 2015 (Oba, 2014).

The AEC project seeks to introduce:

A single market and production base which is stable, prosperous, highly competitive, economically integrated with effective facilitation for trade and investment in which there is free flow of goods, services and services; facilitated movement of business persons, professionals, talents and labour; and freer flow of capital... (ASEAN Charter 2007, art.1(5))

As noted above, ASEAN and the EU are two distinct regional organisations, but Brexit can surely give ASEAN some lessons to learn.

For instance, a survey on ASEAN awareness conducted on behalf of the ASEAN Foundation highlighted that most people from Vietnam and Laos etc. are enthusiastically pro-ASEAN whilst most people from some major ASEAN member states (e.g., Singapore) are unaware of ASEAN’s current development and are somewhat ambivalent about the regional integration (Thompson and Thianthai, n.d.). The above findings, in some respects, are in line with the findings of a survey on public support for the EU in Britain (see above) because both of them similarly show that a sizable proportion of the people from major countries are relatively uninformed of and are ambivalent towards regional integration.

This suggests that political elites in the EU and ASEAN all failed to communicate effectively with the people about the regional integration.

Similar to the EU, “free flow of labor” is seen in ASEAN as the key to success of a single market, but free labor mobility in ASEAN is restricted to high-skilled workers from eight sectors namely engineering, nursing, architecture, medicine, dentistry, tourism, surveying and accountancy (Papademetriou, Sugiyarto, Mendoza & Salant, 2015). Some may argue that the arrangements for labor mobility in ASEAN are totally different from that of the EU; in addition, ASEAN member states still retain a visa system to control the proportion of immigration to their countries (Papademetriou et al., 2015); thus, the scale of impact from labor mobility upon the host country in ASEAN would be far less serious compared to the impact of EU labor movement upon Britain.

Nonetheless, the lessons that ASEAN could and should learn from Brexit and the EU are not entirely about any particular policy imposed upon each member state by the intergovernmental body but it is also about people’s voice in the process of policy decision-making. The study of Rüland (2016), for example, suggested that micro, small and medium-sized enterprises (MSMEs) in Indonesia are not enthusiastic but rather anxious about the AEC. The reason is these small businesses have no role to play in policy-making and that their voice has not been heard. Rüland (2016) highlighted that “the concerns and interest of Indonesian MSMEs played virtually no role at the time of decision on AEC, nor when the details were mapped out” (p. 1133).

In line with the above, Indonesia’s Trade Minister–Thomas Lembong has said, “I worry that within ASEAN there is a similar danger that ASEAN becomes a project of the elites, and we don’t spend enough time, money and effort socializing it to the people” (Listiyorini et al., 2016). Lee Yoong Yoong–ASEAN’s Director of Community, also pointed out, “One of the lessons drawn from Brexit, not just from an ASEAN angle, is that you can’t ignore the sentiment on the ground” (Listiyorini et al., 2016). The Indonesia’s Trade Minister and the ASEAN’s Director of Community stressed that ASEAN and the EU are similarly an elite project which is apparently unconnected to the ground.

Even though the building of the AEC progresses slowly and incrementally, Brexit is a wake-up call for ASEAN that there should be no room for complacency. Thus, ASEAN elites should not view that there will not be any problem for the AEC so long as they themselves feel that everything is going well. Instead, they should make the AEC a more people-centric project to avoid any common pitfalls in the future.

Raising Public Awareness of ASEAN and the AEC

Increasing public awareness of the AEC is vital for sustainable development of regional integration. This paper suggests that effective communication from ASEAN elites to ordinary people about ASEAN and the AEC would raise public awareness of the importance of regional integration for collective interests. Furthermore, it could also help reduce the level of skepticism towards ASEAN. In so doing, a number of strategic plans are offered as follows:

From the perspective of people on the ground, economic integration is an abstract concept. As a result, ASEAN elites in every member state should launch a campaign to make their

people become well-informed about what ASEAN and the AEC are all about. They should also explain to ordinary people the advantages of a united ASEAN in the increasing competitive world, particularly how ASEAN's role in the world can benefit the citizens of ASEAN collectively. For example, ASEAN as a trading bloc is much more competitive with other major economies like United States and China etc. compared to any individual countries in the region. As regards the formulation of policy, ASEAN elites should take into account more pro-people and less trickle-down approaches in order to make people on the ground feel that they are the real beneficiaries of the AEC.

In addition, as Ha et al. (2016) pointed out that 'membership in a regional grouping almost always entails a fair degree of "give" and "take"'; hence, it is important that ASEAN should focus on maintaining the discipline of member states to deter free-riding. Finally, the fact shows that regional integration or cooperation always goes smoothly in good times but is unwelcome in hard times (Davies, 2016; Listtiyorini et al., 2016). Therefore, ASEAN elites should make it clear to the people that whilst they may enjoy the benefits of economic integration, they also need to be prepared for all eventualities which may arise. All of this would not just help raising public awareness of ASEAN and the AEC but also help overcome unnecessary fears as well as, in some cases, unreal expectations of ASEAN and the AEC.

CONCLUSION

Undeniably, the success of the AEC is crucial to the future of regional cooperation and integration in Southeast Asia. The accomplishment of the AEC would empower the rest of ASEAN whilst the failure of the AEC could lead to disunity in the region. One of the key points ASEAN can learn from Brexit is that political elites who run the regional integration project cannot ignore the sentiment on the ground. Ultimately, effective communication from political elites in each ASEAN member state to their people is vital for the success of the AEC. If people are well-informed about ASEAN and the AEC project and recognize the importance of regional integration, the AEC would be very much strengthened by widespread public support. Hence, there is no room for complacency, ASEAN elites must start learning from the Brexit lessons and adjust the way the AEC progresses.

NOTES

1. In Britain, younger generations tend to vote to remain in the EU whilst older generations are likely to vote to leave the Union.
2. "The leave camp" refers to the campaign to leave the European Union during the EU referendum in Britain.
3. "The remain camp" refers to the campaign to stay in the European Union during the EU referendum in Britain.
4. "Brexit" stands for Britain exiting the European Union.

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REEXAMINING HOLIDAY AND MONTH EFFECTS IN STOCK EXCHANGE OF THAILAND

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ABSTRACT

Although many studies have analyzed the existence of calendar anomalies in stock markets around the world, only few studies have been analyzed in Thai stock market. Many previous studies examined calendar anomalies by using SET index. However, most investors need to know the market timing for investing in specific types of stocks. Hence, this study filled the gap of the existing studies in Thailand by analyzing the holiday effect and the weekend effect on return of commerce sector. Data used in this study were close price of the listed companies in commerce sector of SET for total 2430 trading days. The pooled-OLS, the fixed effect and the random effect specifications were estimated. The results showed that there were evidences of calendar anomalies in the form of positive returns on pre-weekend and negative returns on post-holiday and post-weekend. Hence, this study can be beneficial to investors and portfolio managers in order to find the best market timing and consequently maximize their expected return.

KEY WORDS: Calendar anomalies, holiday effect, month effect, panel data analysis

INTRODUCTION

The studies related to calendar anomalies in stock market, which is an unusual pattern of stock returns caused by the calendar year have been carried out in both specific country level and cross country level. Calendar anomalies are composed of the day of the week effect, the month effect, and the holiday effect. The day of the week effect sometimes is called weekend effect or Monday effect. Many previous studies found that stock returns on Monday were often significantly lower than the preceding Friday (French, 1980; Huang, 1985; Lakonishok & Maberly, 1990; Ziemba, 1993; Chan, Leung & Wang, 2004; Joshi, 2006; Lean, Smyth & Wong, 2007; Kenourgios & Samitas, 2008). However, the recent studies related to the weekend effect showed that stock returns on Mondays tended to be higher than stock returns on Fridays since investors had changed their trading pattern (Steely, 2001; Sullivan, Timmerman & White, 2001; Chen & Singal, 2003; Aly, Mehdian & Perry, 2004; Kenourgios & Samitas, 2008)

In term of the month effect, the most prevalent effect is called January effect. Stock returns on the beginning of the year tended to be higher than returns of other months (Haug & Hirschey, 2006; Wong, Agarwal & Wong, 2006; Ariss, Rezvanian & Mehdian, 2011). This January effect could be the results of window dressing, tax-loss harvesting and repurchases as well as psychology. Another prevalent month effect is known as October effect. Arshanapalli & Doukas (1993) found that stock returns tended to decline during the month of October. This October effect was mainly caused by the psychological fear from the past

financial crises in October. In term of the holiday effect, stock return on the day before holidays tended to be higher than returns on average days. (Lakonishok & Smidt, 1988; Pettengill, 1989; Kvedaras & Basdevant, 2002; Meneu & Pardo, 2004; McGuinness, 2005; Alagidede, 2008; Marrett & Worthington, 2009; Bley & Saad, 2010; Ndonga, 2014; Rowjee, 2014). The existence of calendar anomalies on stock returns has showed the existence of market inefficiency in the stock market. Therefore, stock market investors should be aware of these abnormal situations in order to find the appropriate market timing for investing in stock market.

Although many studies have analyzed the existence of calendar anomalies in stock markets around the world, only few studies have been analyzed in Thai stock market. Sumranrat (2009), Sutheebanjard & Premchaiswadi (2010) and Chotiamporn & Kaewsompong (2016) analyzed the impacts of the day of week on return of Stock Exchange of Thailand (SET). Sumranrat (2009) used multiple regressions on 37 indices of SET; whereas Sutheebanjard & Premchaiswadi (2010) used Mean Absolute Percentage Error and SET index to investigate the day-of-the-week effect on stock market returns. In addition, Chotiamporn & Kaewsompong (2016) used GARCH model on 9 financial stocks in SET. There was only one study that examined the impacts of the holiday on return of SET. Tangjitprom (2010) used GARCH and E-GARCH model on SET indices during 1992-2009. The study showed that preholiday returns and volatility of SET were abnormally high, which reflects holiday effect in Thailand. Tangjitprom (2010) used the daily data for SET indices for calculating the market return. However, most investors need to know the market timing for investing in specific types of stocks instead of the whole market. Hence, the study aims to fill the gap of the existing studies in Thailand by analyzing the holiday effect on return of a particular sector.

Among eight industry groups and 28 sectors of SET, the index of commerce sector under service industry has the highest value, which represents the importance of commerce sector in Thailand. Commerce sector of SET includes companies in retailing or wholesaling and including those with physical and online shops. Because of trade liberalization, retail stores especially modern trade stores have been expanded since 2000. Besides, changes in behaviors and lifestyles of consumers have also resulted in the expansion of commerce sector in Thailand. Since the commerce sector has grown rapidly, the listed companies in commerce sector have become more attractive sector for investors. Besides, the growing in household consumption has also drawn investor attention into the listed companies in commerce sector. In addition, the commercial sector is also fueled by holidays. Consumers are most likely to spend more during the holiday season. Specifically, as demand increases, the commerce sector is likely to have a higher profit and consequently impact on companies' returns. All of the above shows the importance of the commerce sector, that is why this study chooses to study the commerce sector.

In addition to the holiday effect, this study also examines the weekend effect whether commerce sector stocks have relatively large returns on Fridays compared to those on Mondays. This study is beneficial to investors in order to find the best market timing and maximize their market return especially on commerce sector.

RESEARCH METHODOLOGY

The purpose of this study is to determine whether the holiday effect has an influence on returns of listed companies focused on commerce sector of SET. The returns associated with the listed companies in commerce sector of SET were measured by the percentage change of daily prices of the listed companies in commerce sector of SET as shown in Equation (1).

$$R_{it} = \ln \left(\frac{P_t}{P_{t-1}} \right) \times 100\% \quad (\text{Equation 1})$$

where R_{it} is Return on the listed companies i in commerce sector of SET

P_t is Close price of the listed companies i in commerce sector of SET at day t

P_{t-1} is Close price of the listed companies i in commerce sector of SET at day $t-1$

Data used in this study were close price of the listed companies in commerce sector of SET for the time periods from January 1, 2006 through December 31, 2015, total 2,430 trading days. There were seven listed companies in commerce sector of SET as shown in Table 1.

Table 1.

The Listed Companies in Commerce Sector of SET

Abbreviation	Full Name
BIGC	Big C Supercenter PCL
BJC	Berli Jucker PCL
CPALL	CP ALL PCL
HMPRO	Home Product Center PCL
LOXLEY	Loxley PCL
MINOR	Minor International PCL
ROBINS	Robinson Department Store PCL

In order to achieve study objectives, this study performed two models with dummy variables.

The Holiday Effect Model:

$$R_{it} = \alpha_{it} + \beta_1 D_{pre} + \beta_2 D_{post} + \varepsilon_{it} \quad (2)$$

Where R_{it} is Stock Return of the listed companies i in commerce sector of SET

D_{pre} is a dummy variable taking the value one for the trading day before a public holiday and zero otherwise;

D_{post} is a dummy variable taking the value one for the trading day after a public holiday and zero otherwise;

ε_{it} is error term

The Month Effect Model:

$$R_{it} = \gamma_0 + \theta_1 DJan + \theta_2 DFeb + \theta_3 DMar + \theta_4 DApr + \theta_5 DMay + \theta_6 DJun + \theta_7 DJul + \theta_8 DAug + \theta_9 DSep + \theta_{10} DOct + \theta_{11} DNov + \varepsilon_{it} \quad (3)$$

Where R_{it} is Stock Return on the listed companies i in commerce sector of SET

$DJan$ is a dummy variable taking the value one for the trading day on January before the and zero otherwise;

$DFeb$ is a dummy variable taking the value one for the trading day on February before the and zero otherwise;

$DMarch$ is a dummy variable taking the value one for the trading day on March before the and zero otherwise;

$DApr$ is a dummy variable taking the value one for the trading day on April before the and zero otherwise;

$DMay$ is a dummy variable taking the value one for the trading day on May before the and zero otherwise;

$DJune$ is a dummy variable taking the value one for the trading day on June before the and zero otherwise;

$DJul$ is a dummy variable taking the value one for the trading day on July before the and zero otherwise;

$DAug$ is a dummy variable taking the value one for the trading day on August before the and zero otherwise;

$DSep$ is a dummy variable taking the value one for the trading day on September before the and zero otherwise;

$DOct$ is a dummy variable taking the value one for the trading day on October before the and zero otherwise;

$DNov$ is a dummy variable taking the value one for the trading day on November before the and zero otherwise.

ε_{it} is error term

Most previous studies have used multiple regression and GARCH model. However, this study focused on the unobserved confounding factors of each listed companies such as the unique characteristics of each stock. To address this, this study employed panel estimation techniques that allow for possibility of time specific and company specific effects. For each model, the study estimated the pooled OLS model, the fixed and the random effect models, then compared the fixed and the random effect models in order to find the most appropriate model. Theoretically, the fixed effect approach is better suited to cases of unobservable company-effects and unobservable time-effects. On the other hand, if the unobserved individual heterogeneity is uncorrelated with the explanatory variable, the random effect model is a better choice (Greene, 2003).

RESULTS

Table 1 showed that the average return was about 0.0292%; whereas the average return on trading days that were not the pre/post holidays was about 0.0357%. The average return on the pre-holidays was about -0.037%; meanwhile the average return on the post-holidays was about -0.1347%.

Table 2.

Descriptive Statistics

	Mean(%)	SD	Min(%)	Max(%)
Overall Return	0.0292	4.28	-298.05	26.24
Return on Trading Days that are not Pre/Post holidays	0.0357	4.17	-298.05	26.24
Return on Pre-holidays	-0.0371	2.71	-33.52	7.04
Return on Post-holidays	-0.1347	7.90	-237.93	13.84

Table 3 showed that September, October and February were the top three months in term of monthly returns at 0.093%, 0.091% and 0.087%, respectively. Meanwhile, March, May and January were the lowest three months in term of monthly return at -0.07%, -0.03% and -0.04%, respectively.

Table 3.

Descriptive Statistics on Return on Each Month

	Mean(%)	SD	Min(%)	Max(%)
Return on January	-0.0269	2.53	-34.09	21.75
Return on February	0.0877	2.25	-14.31	15.30
Return on March	-0.0660	7.65	-298.05	20.76
Return on April	0.0177	2.94	-66.73	23.39
Return on May	-0.0370	7.99	-298.05	10.82
Return on June	0.0376	2.39	-18.37	22.42
Return on July	0.0057	2.87	-66.73	26.00
Return on August	0.0395	6.32	-237.93	22.42
Return on September	0.0939	2.36	-20.67	24.20
Return on October	0.0910	2.68	-33.52	26.24
Return on November	0.0538	2.46	-20.67	26.00
Return on December	0.0510	2.45	-33.65	17.19

The steps in this empirical analysis were as follows: the pooled OLS, the fixed effect and the random effect specifications. The pooled OLS model was estimated with pooled data from all companies and years. The fixed effect and the random effect models were the logical estimation approaches for panel data. The F-test for individual company effect was 0.43 with $Prob > F = 0.8594$ (See Table 4). Although the significant p-value of the Hausman tests showed that random effect model was preferred, the F-test for individual company effect suggested that there was no company-specific effect. Hence, the pooled-OLS model was the most appropriate model for this study.

From the pooled-OLS model in Table 4, the result showed the existence of the post-holiday effect. There was a significant negative sign on coefficient of the post-holiday dummy variable, which was -0.2358 and was significant at the 1% level. In sum, the post-holiday returns were lower than returns of other days. Meanwhile, the coefficient of the pre-weekend dummy variable was also negative but insignificant.

Table 4.

Holiday Effect on Stock Return

Return	Pooled-OLS Coef.	Fixed Effect Coef.	Random Effect Coef.
Pre-Holiday	-0.0516 (0.1332)	-0.0516 (0.1332)	-0.0516 (0.1332)
Post-Holiday	-0.2358* (0.1332)	-0.2358* (0.1332)	-0.2358* (0.1332)
Constant	0.0532* (0.0315)	0.0532* (0.0315)	0.0532* (0.0315)
Hausman Test		0.01 (0.9988)	
F-test for Individual Effect	0.43 (0.8594)		

Notes. * shows statistical significance at 10%.

Like the previous section, three models, which were the pooled OLS, the fixed effect and the random effect specifications were estimated. Although the significant p-value of the Hausman test showed that random effects model was preferred, the F-test for individual company effect was 0.43 with $Prob > F = 0.85$ (See Table 5). The F-test for individual company effect suggested that there was no company-specific effect. Similar to holiday effect model, the pooled-OLS model was the most appropriate model for this study.

From the pooled-OLS model in Table 5, the result showed the existence of the month effect. There was a significant positive sign on coefficient of the month of April dummy variable, which was 0.2586 and was significant at the 10% level. Meanwhile, the coefficients on the rest of the months were insignificant. Hence, the month effect for commerce sector in Thai stock market only happened in April.

The higher return in the month of April may resemblance to the January effect when there is an increase in the month of January. Like January, April is the month of Thai New Year. The increase in stock return during the month of New Year comes from buy order flow that increases after the New Year day.

Table 5.

Month Effect on Stock Return

Return	Pooled-OLS Coef.	Fixed Effect Coef.	Random Effect Coef.
January	0.0213 (0.1474)	0.0210 (0.1474)	0.0213 (0.1474)
February	0.1815 (0.1495)	0.1814 (0.1496)	0.1815 (0.1495)
March	0.2386 (0.1460)	0.2389 (0.1460)	0.2386 (0.1460)
April	0.2586* (0.1533)	0.2586* (0.1533)	0.2586* (0.1533)
May	0.0590 (0.1508)	0.0591 (0.1508)	0.0590 (0.1508)
June	0.0669 (0.1468)	0.0671 (0.1468)	0.0669 (0.1468)
July	0.1466 (0.1477)	0.1469 (0.1477)	0.1466 (0.1477)
August	0.1309 (0.1477)	0.1309 (0.1477)	0.1309 (0.1477)
September	0.0684 (0.1468)	0.0679 (0.1468)	0.0684 (0.1468)
October	-0.2277 (0.1466)	-0.2278 (0.1466)	-0.2277 (0.1466)
November	0.1417 (0.1464)	0.1418 (0.1465)	0.1417 (0.1464)
Constant	-0.0507 (0.1063)	-0.0506 (0.1063)	-0.0507 (0.1063)
Hausman Test		0.21 (0.99)	
F-test for Individual Effect	0.43 (0.85)		

Notes.* shows statistical significance at 10%.

CONCLUSION

This study aims to examine calendar anomalies from the holiday effect and the month effect in SET. Although many studies have analyzed the existence of calendar anomalies in stock markets around the world, only few studies have been analyzed in Thai stock market. Most previous studies examined calendar anomalies by using SET index. However, most investors need to know the market timing for investing in specific types of stocks instead of the whole market. Hence, the study bridges the gap of the existing studies in Thailand by analyzing the holiday effect and the month effect on return of commerce sector. Using a wide range of regression model for panel data such as the pooled-OLS, the fixed effect and the random effect specifications, the statistical tests shows that the pooled-OLS was the most appropriate model. The study found some evidences of calendar anomalies in the form of positive returns on the month of April and negative returns on the post-holiday.

Compared to previous studies in Thai market, this study employs panel estimation techniques that allow for possibility of time specific and company specific effects. In contrast to Tangjitprom (2010), the post-holiday return is lower than return of other working days. The reason caused the different sign on the post-holiday coefficient is probably the different dataset. Tangjitprom (2010) used the SET index for calculating the return; whereas this study used return on the listed companies in commerce sector of SET. Moreover, the post-holiday returns on commerce sector are probably decreased because during holidays, the market is more sensitive to the bad or negative news and as a result, information is incorporated into the decreasing in prices. Meanwhile, the results are inconsistent with previous literatures related with January effect (Haug & Hirschey, 2006; Wong, Agarwal & Wong, 2006; Ariss, Rezvanian & Mehdian, 2011). Evidences of both the post-holiday effect and April effect are found in Thai stock market. Hence, this study can be beneficial to investors and portfolio managers in order to maximize their expected return by exploiting calendar anomalies in their portfolios as well as to forecast stock market trends, which can help them in their investment decisions.

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THE SKILLS NEEDED FOR HUMAN RESOURCE DEVELOPMENT GRADUATES IN THAILAND

by

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ABSTRACT

There has been a need for human resource development (HRD) professionals in Thai labor market. Even though there are numbers of HRD programs in the graduate level to produce HRD practitioners and scholars, the gap between theory and practice remains. One possible reason could be the rapid change in social context. Skill sets for HRD professional are different from those in the past. This paper presents the set of skills expected from HRD graduates in the graduate level in Thailand. Data were collected from HRD programs' stakeholders by interviews. Content analysis revealed 19 skills expected from graduates. These skills were analyzed separated from expertise in the field, which is knowledge in HRD concepts and practices. These skills were mainly soft skills, such as systematic and analytical thinking, communication skills, team working. Some were related to personal attitudes, such as positive attitude toward human development (developer mindset), having a sense of giving. It is important for the academia to understand these needs of skill set. Graduate programs' developer, as well as faculty members, need to develop the programs to be able to produce graduates who meet the expectation and requirements of the labor market. HRD students and graduates need to understand what the expectations would be as well, in order to fully prepare themselves for the future career. The HRD practice needs to realize about this as well, in order to be able to train and develop current HRD professionals in organizations, and to be able to hire the right HRD professionals for the best benefits for the organizations.

KEY WORDS: HRD education, HRD graduates, HRD graduate programs, HRD skills, Thailand

INTRODUCTION

At present, higher education bears the expectations from the society. As there are multiple groups of education stakeholders, namely, lecturers/instructors, officers in educational institutions, students, the government sector, assessors from various organizations, and so on (Green, 1994), the expectations are diverse, and stakeholders' expectations and requirements have become more important for higher education institutions when it comes to the matter of continuous improvement.

Recently, in Thailand, the requirements of various stakeholders have been collected and interpreted in order to develop and improve all educational programs—from the expected learning outcomes of the programs, teaching and learning methods, and students' learning evaluation to stakeholders' satisfaction in terms of continuous improvement of the pro-

grams (ASEAN University Network, 2015). In that sense, it is important for the programs to understand the needs and expectations of their stakeholders to be able to design and deliver the programs effectively, and to ensure the quality of the graduates of the programs.

Despite the attempt to consider stakeholders' expectations regarding educational program development, the issue of a mismatch between graduates' competencies and employers' needs is still present in Thailand. Prachachat Online (2016, July 18) stated that the unemployment rate in Thailand is increasing and the majority of unemployed are college graduates. This statement reflects a significant issue in Thailand's higher education system. A quality of graduates has been important for Thailand's workforce; however, the quality of the workforce is as important. Even though Thai educational institutions produce a great number of college graduates, many of them do not possess the competency that meets the employers' requirements and expectations. Consequently, graduates take them longer to find suitable jobs, or they eventually agree to take jobs that do not match their educational backgrounds (Pholphirul, Khong-ngern, & Thowladda, 2016).

It is important for the field of human resource development (HRD), as a continuously growing field of study in Thailand, with a good relationship between the academia and HRD practices (McLean & Akaraborworn, 2014), understand the expectations of the stakeholders of the programs in order to design and develop programs to ensure that graduates are well equipped with suitable skills and are able to serve their employers as expected. This paper is a product of the attempt to bridge the gap between academia and the field of practice by presenting the skills needed for the HRD graduates of graduate programs in Thailand. The main research question concerning what skills are needed for HRD graduates from the graduate programs in Thailand.

LITERATURE REVIEW

Human Resource Competencies

Competency is a set of knowledge (a body of information relevant to job performance that people have to know to be able to perform a job), skills (the ability to perform certain tasks), and attitudes (characteristics, traits, values, orientations, and commitments) (Boyatzis, 2008; McLagen, 1997; McLean, 2006). From the definition above, in order to perform a job, skills are needed as a part of competency that could fulfill one's work.

Ulrich and Dulebohn (2015) stated that the main role of human resource (HR) professionals is to add value to the organization. They further suggested that HR professionals should understand the external environment and the requirements of stakeholders that could affect operations within organization. Ulrich et al. (2012) proposed six HR competencies that could help the organization perform effectively: (1) strategic positioner—HR professionals should understand the external environment and align internal operations to meet with customers and stakeholders' demands; (2) credible activist—HR professionals were reliable and trustworthy, and had good communication skills in order to influence others as well as created impact for the organization; (3) capability builder—HR professionals determined and invested in the capabilities of the organization and translated them to make employees understand the value of the organization so that employees could make their work meaningful; (4) change champions—HR professionals initiated and sustained changes that added value to the organization; (5) human resource innovator and

integrator—HR professionals understood key current HR practices that could be solutions of business problems and could affect the organization in the long run; and (6) technology proponent—HR professionals used technology to increase the efficiency of their administrative work, improved communication with internal and external stakeholders, and built relationship via social media.

Taking what was proposed above into consideration can reveal certain needs toward HRD graduates internationally, as HR competencies are important for HR professionals' career success.

HR Competency Concepts in Thailand

The Personnel Management Association of Thailand (PMAT), in cooperation with the Thailand Professional Qualification Institute, established Thailand HR competency standards that would be required for HR professionals in Thailand (PMAT, n.d.), called Thailand's HR certification. This standard would be under the supervision of the Thailand Human Resources Certification Institute (HRCI) (HRCI, 2016). According to HRCI (2016), HR competencies could be divided into two major groups: HR professional practices, which consists of general or core competencies, and HR expertise, which consists of professional or functional competencies.

HRCI (2016) revealed eight competencies of HR professional practices as follows.

1. ethical practice: HR professionals perform their work according to a0 code of ethics
2. analytical thinking and innovation: HR professionals can analyze, solve organization problems, and add value to the organization based on analytical, inquiring, and innovative skills
3. information and communication technology and digital skills: HR professionals are able to use technology, operate computers and network, and work with information and communication technology, HR software, social media, electronics devices in order to increase efficiency and agility
4. self and people development: HR professionals have learning skills and continuous development, coaching and mentoring, and are responsible for their work
5. communication and media literacy: HR professionals are able to choose suitable media in order to communicate effectively
6. collaboration, team, and leadership: HR professionals can work well with others in order to accomplish common goals of the organization
7. change management and partnering: HR professionals can apply their knowledge and skills in order to initiate changes that help the organization perform
8. diversity management: HR professionals understand diversity and manage individual strengths that are useful for the organization (PMAT, n.d.; HRCI, 2016)

This set of competencies would be applied to all certified HR professionals, yet at different levels due to levels of certification (PMAT, n.d.).

Nine other competencies were revealed as HR expertise, mostly in accordance with HR functions, as follows: HR concept and strategy, attraction and selection, remuneration management, employee relations, learning and development, workforce planning, performance management, career management, organization development (HRCI, 2016). Among this set of competencies, HR professionals can select which competencies they want to be certified in according to their line of work (PMAT, n.d.).

METHOD

Participants

Selection Criteria

Glesne (2011) stated that participant selection depended on the research questions. Thus, this study selected subject matter experts that were stakeholders in HRD programs in Thailand. The purposive sampling was based on Cooper and Schindler's (2006) suggestions, and Kuchinke's (2001) suggestion concerning HRD program stakeholders. The participants included (1) employers of graduates that were HRD practitioners for their requirements from labour market perspective, (2) instructors for their academic standard perspective, and (3) HRD graduates for their learners' perspective.

Participants' Profile

Eleven in-depth interview sessions were conducted, as summarized in table 1. The participants were female and male, aged from 30 to 65 years, with different levels of experience in the HR field, and with diverse levels of educational background.

Table 1.

Participants' Profile

Participant Number	Gender	Age	Participant Type	Highest Education	Experience in HR Field (years)
1.	Female	45	Employer	Doctoral Degree	5
2.	Male	31	Employer	Master Degree	7
3.	Female	55	Instructor	Doctoral Degree	23
4.	Female	42	Graduate	Master Degree	20
5.	Female	65	Employer	Bachelor Degree	40
6.	Male	30	Employer	Master Degree	6
7.	Male	49	Graduate/Instructor	Doctoral Degree	16
8.	Male	41	Graduate/Employer	Doctoral Degree	16
9.	Male	41	Employer	Master Degree	12
10.	Female	63	Instructor	Doctoral Degree	More than 20
11.	Male	30	Instructor	Doctoral Degree	6

Data Collection

Semi-structured interviews were conducted with a duration of 45-60 minutes. All of the participants were interviewed using the same set of questions. The main question was *what are the needs in HRD education in Thailand?* For in-depth understanding, probing questions were applied, such as *In your opinion, what are the characteristics/competencies of HRD graduates?* and *As a direct supervisor, what are your expectations regarding HRD graduates' characteristics/competencies?* The interviewer could not ask other questions in order to prevent using leading questions.

Glesne's (2011) ethical principles of research that involves humans were adopted. Before every interview, the participants were asked for their permission to make a voice recording, were informed of their roles in this research, and the benefits of the research. The participants' identities were protected.

Data Interpretation

Content Analysis

When saturation was reached, the data were interpreted based on Rouna's (2005) suggestions. First, numbers were assigned to each participant in order to protect his or her identity and to prepare for the data analysis. Second, a data analysis was conducted using coding in order to investigate the answers to the main research question and in order to form conclusions from the qualitative data (Glesne, 2011; Rouna, 2005). This study used an electronic codebook for the process of data-driven coding, which is fundamental and is commonly used for analysing categories, themes, and findings (Rouna, 2005).

Trustworthiness

In order to ensure trustworthiness and impartiality of this study, member checking, which is a process that allows participants to check the accuracy of the interview transcription and to add-on or cut-off data should they prefer to (Rouna, 2005), was performed. Moreover, this study used an audit trail, which linked all of the codes to transcriptions in order to ensure that the information was accurate and rooted in the actual sources. The participants' numbers and line numbers assigned in the first step were used in the audit trail.

This study used peer review as suggested by Glesne (2011) in order to ensure the trustworthiness of the results. Three interpreters worked together in analyzing transcribe and coding. However, the interpretation process was also conducted based on a code of ethics and all of the participants' information was kept confidential.

FINDINGS AND DISCUSSION

To report the findings, quotes from transcript were used to elaborate the findings, and lead to discussion. Quotes were reported with audit trails in the parentheses. The following are the findings of this study, together with discussion with existing literature.

Leading Change, Guiding Society, Being a Change Agent

The first skill found was the ability to lead changes. Participant 3 mentioned that HR professionals are able to “guide society” (3.93), while participant 9 stated the characteristic of HR as being “able to convince and influence change then invent something” (9.175). The leading change skill was consistent with Ulrich, Younger, Brockbank, and Ulrich’s (2012) change champion and HRCI’s (2016) concept of change management.

Systematic and Analytical Thinking Skills

The participants emphasized “analytical and systematic thinking.” (4.303) Participant 3 stated that the HRD program should “teach students to see things systematically and foresee the impacts of action, which is hard to develop.” (3.148-149) Participant 10 also suggested that “analytical and synthesizing skills should be taught in every subject.” (10.89) Agreeing with previous mentioned statements, participant 6 specified that “Systematic thinking should be more emphasized and linked with actual situations...” (6.118).

These skills related to HRCI’s (2016) analytical skill, which could be the foundation of innovator and integrator skills based on Ulrich, Younger, Brockbank, and Ulrich (2012).

Sense of Giving and Helping Others to Develop

Participant 9 stated that HR professionals should “enjoy being capability builder and giver” (9.109-110), an idea that is aligned with Ulrich, Younger, Brockbank, and Ulrich’s (2012) notion of capability builder and HRCI’s (2016) self- and people development.

Developer Mindset and Positive Attitude

The participants mentioned about having a positive attitude towards HRD work and to others. Participant 10 stated that HRD should “think positively” (10.98) and participant 9 mentioned that a “positive attitude is the foundation of HR. If you do not have it, you cannot work.” (9.191-192, 194) Moreover, participant 3 stated that HR should have an attitude that every person can be developed. It was mentioned as “an attitude toward people (3.66), meaning that seeing people with their potential and ability to learn and develop. Such attitude makes HR try to find out how to add value to people.” (3.69)

Communication Skills—Presenting, Publicizing, Persuading

The participants focused on “communication,” (10.122) including presenting, publicizing, and persuading skills. Participant 3 mentioned that “it is important for HR to convince people and sell our ideas. “When we want to push a project, we have to convince others that it is crucial and add value” (3.133-134) was mentioned by participant 3, while participant 1 stated that “we have to talk with top management using the same language, which is more than doing just what we are asked....” (1.171)

These communication skills are consistent with HRCI’s (2016) notion of communication and media literacy, and Ulrich, Younger, Brockbank, and Ulrich’s (2012) credible activist competency.

Employee Champion

Participant 4 stated that HR professionals should “understand how people are like.” (4.99) This fully relates to what was mentioned in the literature. Before Ulrich, Younger, Brockbank, and Ulrich (2012) proposed the six HR competencies, Ulrich (1998) presented the role of HR as an employee champion, which posted an expectation on HR professional to be able to engage employees and make them commit to the organization’s goals.

Life-Long Learning and Continuous Learning

Participant 5 mentioned that HR professionals must be “well-rounded” (5.181) and must “continuously learn” (5.155), because HRD is “a dynamic science that requires learning in its evolution and upcoming trends.” (3.11-12) Moreover, “HR professionals must be keen on HRD interventions and practices. Sometimes, you do not need to get formal training, but you learn by self-learning or even shadowing someone who are good at those practices.”

Strategic Thinking, Strategic Planning, and Outcome-Based Management

The participants stated that one of the professional roles of HR is to be a strategic partner. Participant 8 mentioned that “What I see today is that we are just a passive strategic partner. We listen to marketing department who already generated strategic plan instead of being a part of the strategic planning itself. We can be much more than that.” (8.46-49) In addition, Participant 4 also stated that ...

We have to be designers that create and select tools to help the organization achieve goals. For example, organization wants fifty-billion-baht profit. What should we sell to achieve that? What are the characteristics of people in the organization do we need? What people solutions should we think and come up with? We should be HR designers. HRD program should provide case studies that help students think about solutions and select body of knowledge or tools to solve organization’s problems (4.283-286).

Strategic thinking can begin with considering the concept of result-based management, as participant 9 mentioned.

Outcomes is the starting point that guides our practices. Starting with the outcomes, we can design a story line that helps toward those outcomes. Many HR professionals think about processes, research, research procedures. But I would start with outcomes and story line that leads to outcomes (9.37-40).

The strategic thinking skill matches Ulrich, Younger, Brockbank, and Ulrich’s (2012) strategic positioner and HRCI’s (2016) suggestion about HR competency in organizational and environmental analysis. HR professionals are expected to understand the organizational situation and to design appropriate plans to achieve the organization’s goals.

Conceptual and Holistic Thinking

Participant 3 stated that the HRD program should “help student develop their holistic perspective. They might need many HR tools in their works, such as tools related to work environment, motivation and reinforcement, or organization culture. Do not just have them learned each topic separately.” (3.73-74) HR professionals should have a holistic view of the organization, as participant 9 stated.

When you ask HR about who their customers are, HR would mention *employees*. It is not an incorrect answer, but it is not conclusive. HR professionals do not just serve only employees. They serve customers too. By that thinking, you can see a bigger picture. Customers’ requirements can lead to competencies needed, then HR professionals will look at themselves and ask what I should do to help employees in fulfilling customers’ demands. This is a holistic thinking (9.50-53).

This relates to the concept of the strategic positioner. HR professionals are expected to understand the external environment and to align internal operations to meet the customers’ and stakeholders’ demands (Ulrich, Younger, Brockbank, & Ulrich, 2012).

Creative Thinking

Creative thinking is a required skill for HR professionals. The participants stated that HR professionals should “have a little creative thinking” (3.118-119) and “adopt multiple and broader perspectives. Instead of keep asking *why I should do new things*, they should ask *why not*.” (10.101-102)

This skill agrees with Ulrich, Younger, Brockbank, and Ulrich’s (2012) suggestion about HR professionals as innovator, and HRCI’s (2016) suggestion about HR professionals being analytical and innovative.

Questioning Skills

The HRD program should emphasize developing questioning skills, as participant 4 stated: “I would like professors to help students learn how to raise good questions and encourage them to ask questions.” (4.253-254) This concept also relates to the HRCI’s (2016) suggestion about self-development. Also, it is related to the innovators’ characteristic of asking the right question (Dyer, Gregersen, & Christensen, 2009). By asking the right question, one can learn. Moreover, being an HR innovator was mentioned by Ulrich, Younger, Brockbank, and Ulrich (2012) as HR competency.

Team Working

Participant 10 mentioned that HR professionals should be “collaborative and cooperate with others” (10.246) and “can work with others, understand organizational situations, listen to and accept others’ ideas, and know when to listen and to speak.” (10.133) This skill matches what PMAT (n.d.) and HRCI (2016) characterized as collaboration, team, and

leadership. HR professionals should be able to work well with others to accomplish the common goals of the organization (PMAT, n.d.; HRCI, 2016).

Implementing Skills

The implementing skill was emphasized by participant 3 that “We have to teach them principles and theories, also train them to apply to their works.” (3.33) HR professionals are expected to be able to apply knowledge to practice, and they should be able to practice what they plan in the organizational context. With practitioners’ perspective, participant 6 stated that “We only care about if they can work in real life context, like a cat that can catch mice. We do not want someone who just talk nicely and know a lot” (6.282-285).

It is a concern that HR graduates should be able to adapt their academic knowledge to fit the organizational context, and to be able to communicate with practitioners properly. Participant 4 mentioned this issue that “Knowing theories would just make an academician who cannot work in real life. You have to understand and adapt to the context.” (4.140-142)

This skill matched the competency of the credible activist, suggesting that HR professionals should be reliable and trustworthy, and have good communication skills to influence others (Ulrich, Younger, Brockbank, & Ulrich, 2012). Additionally, this skill relates to the change management and partnering skill, as it was suggested by PMAT (n.d.) and HRCI (2016) that HR professionals can apply their knowledge and skills in order to initiate changes that help the organization perform.

Adaptation, and Diversity and Cultural Intelligence

Participant 10 suggested that the HR professional should be “an adaptive person (10.116).” Participant 6 posted questions about these skills that “Can you accept a person who thinks differently, who has different political views? Can you be with them? If you can, you can work in the organization since not everybody thinks the way you do. (6.297-299)

Additionally, participant 11 mentioned that “HR professionals can accept and manage change. They have to accept that things change rapidly and be open-minded... Diversity, in this case, is not only ethnicity but also benefits, ethics, philosophy of life, and global mindset.” (11.146-150)

The ability to adapt, and diversity and cultural intelligence is similar to HRCI’s (2016) competency of diversity management, which expects HR professionals to understand and value diversity (PMAT, n.d.).

Topping-Up Knowledge

Participant 3 suggested that HR professionals should “work hard in topping-up their knowledge” (3.86) and be “able to expand their knowledge which can be done by conducting research and making policies concrete.” (3.90-91) This skill can be characterized as continuous learning, which relates to HRCI’s (2016) suggestion concerning self-development.

Human Relations and the Extroversion

Participant 10 stated that in HR work, “soft skills are even more important than hard skills (10.120)” and pointed out the importance of “human relations.” (10.176) Moreover, participant 9 stated that...

HRD professionals should be friendly and can get along well with others. They should have good attitudes toward people, have plenty of energy, and can build relationship easily. If you do not enjoy social activities, how can you know what customers want. (9.210-212)

This part of the results might not fully relate to any part of the reviewed literature. However, the results here relate to HRCI (2016) and PMAT's (n.d.) suggestion about the ability to collaborate and work with others effectively.

Table 2.

Skills Needed for HRD Graduates Based on the Literature and Interview Findings

Ulrich, Younger, Brockbank, and Ulrich (2012)	HRCI (2016)	Interview findings
Strategic positioner	Organization and environment analysis	-Strategic thinking, strategic planning, and outcome-based management -Conceptual and holistic thinking
Credible activist (including employee champion in Ulrich's (1998) model)	Communication skills Code of ethics	-Communication skills—presenting, publicizing, persuading -Employee champion -Implementing skills
Capability builder	Self- and others development	-Life-long learning and continuous learning -Topping-up knowledge -Sense of giving, helping others to develop -Developer mind-set
Change champion	Change management	-Leading change, guiding society, being a change agent -Implementing skills
Innovator and integrator	Analytical and innovative	- Systematic and analytical thinking skills -Creative thinking -Questioning skills
Technology proponent	Information and digital skills	-
	Collaboration and teamwork	-Team working -Human relations and extroversion
	Diversity management	- Adaptation, and diversity and cultural intelligence
-	-	Positive attitude

Considering the reviewed literature, the findings can be summarized in table 2. These findings can be related to Ulrich, Younger, Brockbank, and Ulrich's (2012) HR competencies, and HRCI's (2016) and PMAT's (n.d.) Thai HR competencies. The words may be different; however, the elaborations of each themes or concepts can be found related.

However, the technology proponent, or information and digital skills, were mentioned in the reviewed literature, but were not found in the findings. On the other hand, the element

of a positive attitude, which is a part of the developer's mind-set, was not found in the reviewed literature. The cultural and diversity management skill was found only in the findings and HRCI's (2016) HR competencies, which were developed in the Thai context; but these were not found in the western concept. The above findings and discussion can lead to suggestions for future research and implications for practice presented below.

SUGGESTIONS FOR FUTURE RESEARCH

Future research can contribute to a deeper understanding of the skills needed for HRD graduates. First, quantitative research can be conducted to categorize the previously-mentioned skills systematically. Second, the correlation between these skills and the graduates' working performance, and the employers' satisfaction, can be investigated to understand more about the needs of the labor market. Finally, comparative study between the performance of graduates that have same level of knowledge but with different skill sets can be conducted. That is to investigate the significance of different sets of skills.

IMPLICATIONS FOR PRACTICE

The findings presented in this paper provides input for developing, designing, and improving HRD programs at the graduate level. HRD programs can provide graduates that meet the expectations of the Thai labor market. The findings can also be used for assessing the quality of graduates and their readiness to work, in accordance with the quality assurance principle. Government sectors can consider these findings as criteria for the assessment of HRD program quality in order to appropriately monitor HRD program performance. Related professional associations, such as Human Resource Certification Institution of Thailand, can consider this study in developing professional standards. Finally, HRD programs can utilize these findings to create mutual understanding about HRD programs and HRD graduates among all stakeholders in HRD programs. HRD programs could take these findings as the voice of labor market in developing the programs. The findings can also be communicated to prospective students about what kind of skills that are important for this profession. Organizations can learn about what skill set is needed in persons whom would be hired to be HRD professionals. That mutual understanding can lead to collaboration and contribute to every stakeholder in the long run.

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**PRE-ANALYSIS DATA MANAGEMENT OF NDVI FOR
THE CLOUD FOREST OF KHAO NAN NATIONAL PARK, THAILAND**

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ABSTRACT

A cloud forest is an immensely valuable area that represents rare resources, water sources, and concentration of biodiversity. One of indicators to identify vegetation growth in cloud forest areas is Normalized Difference Vegetation Index (NDVI) from a satellite's sensor. However, NDVI data sometimes are unclear due to the weather conditions and sensor availabilities. To handle these problematic data, this study has shown that Land Surface Temperature (LST) data, from the same satellite's sensor, can be used to identify missing NDVI values. In contrast, the recording cycles and areas for NDVI and LST were not the same, and thus structures of both datasets have to be organized before being used for further statistical analysis. To demonstrate this data management to match NDVI and LST, Khao Nan National Park, one of the most important cloud forests in South East Asia, was selected to be a study area.

KEY WORDS: Cloud forest, NDVI, LST, Data management

INTRODUCTION

All mountain forests have an important role in stabilizing ecosystem. A cloud forest has the unique value of water from clouds and fogs especially during the non-rainy season, and in areas where there are low levels of rainfall but a large coverage of clouds. The concentrations of biodiversity in cloud forests have very high levels of endemism and habitation of plants and animals, which make the cloud forest, accounted for about 380,000 km² of world's forest area, a rare resource. The spatial distribution of cloud forest frequently occurs in Asia nearby equator, specifically in Indonesia, Malaysia, and Thailand (Bubb, May, Miles, & Sayer, 2004). Indonesia has the largest area of cloud forests which are accounted for 251,881 km² or 11.5% of national territory (Mulligan & Burke, 2005). In Malaysia, there is 0.72% of the total land area, considered to be potentially covered by tropical montane cloud forests at 1500-meters elevation (Kumaran et al., 2010). In Thailand, Khao Nan national park is one of important cloud forests in the country. It possesses three highest peaks in this region, namely Khao Nan Yai, San Yean and Khao Tao, and its highest peak is about 1,438 meters above sea level, (Watanasit, Noon-anant, & Phlappueng, 2008). To monitor a resourceful area of the cloud forest in an effective way, satellite data can be used to provide whole covered images of the area. The information from indicators can be provided by satellite remote sensing with efficiency spatially continuous data on environmental variables such as climatic and atmospheric radiation and chemistry, ocean dynamics and productivity properties (Barrett, 2013).

One of commonly chosen satellite data to provide information of natural resources is Normalized Difference Vegetation Index (NDVI), an indicator used to measure the vegetative cover on the land surface over wide areas with signal interval (Pettorelli, 2013). It is captured by Moderate Resolution Imaging Spectroradiometer (MODIS), a sensor to capture NDVI is boarded on Aqua and Terra, two monitoring satellites from National Aeronautics and Space Administration (NASA). Nevertheless, there is occasionally a problem regarding NDVI data when the data are doubtful. This case happens when NDVI data are fluctuating in a short period of time. The fluctuating NDVI is considered unreliable, because it is virtually impossible for vegetation of one particular area to alter abruptly. The possible explanation to this problem is the sensor is not working properly due to a blockage from foul weather or a technical problem of MODIS itself. Therefore, in this study, a technique to deal with such a problem is demonstrated by using another indicator from MODIS that is Land Surface Temperature (LST). Jin and Liang (2006) suggested that LST is an important climate indicator which is related to surface energy balance and the integrated thermal state from the atmosphere to ground. In this study, the satellite data at Khao Nan national park are used as an example for present the data management especially in solving the uncertain NDVI data. Furthermore, this study aims to identify the different data structures of both NDVI and LST and provide the techniques to cope with this difference.

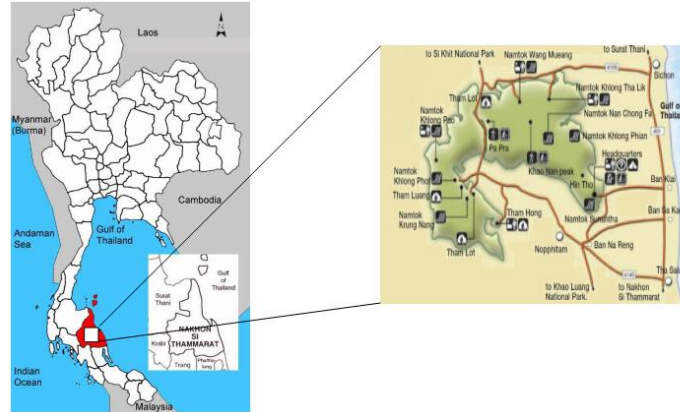
METHODOLOGY

Study Area

The study area was a central part of Khao Nan National Park as shown on the map in Figure 1, covering the land from 8.41°N to 8.58°N and 99.56°E to 99.74°E, accounted for a total land area of 441 km². Khao Nan has an abundance of biodiversity and some of them

are rare to find. Boonkerd, Chantanaorrapint, and Khwaiphan (2008) have found two newly recorded species of Pteridophyte, while Zingiberaceae diversity of 29 species has been found by Kittipanangkul and Ngamriabsakul (2011). Parah is a native species of southern Thailand, and has been found in five main clusters of Parah forests at Khao Nan National Park. The Parah cluster at Ban Tub Namtao is the largest Parah cluster with a total area of 410.08 hectares (Charoensuk, Jaroensutasinee, Srisang, & Jaroensutasinee, 2012).

Figure 1. The Map of Khao Nan National Park



Data Collection and Samples

The satellite data used in this study were Aqua/MODIS data from 2000 to 2015. MOD13Q1 provided NDVI or 16-day 250-m land surface reflectance product, while MOD11A2 provided LST or 8-day 1-km day and night land surface temperature product. These two MODIS products were collected from Oak Ridge National Laboratory Distributed Active Archive Center (ORNL DAAC). An area within a resolution of 250 m² for NDVI or 1 km² for LST, respectively, was called a pixel. Therefore, the total pixels of NDVI and LST were 441 and 6561 respectively for this study area.

As one of indicator which is used to determine the density of green on a patch of land, Tucker (1979) have defined that NDVI can be calculated using the following equation:

$$NDVI = (\rho_{NIR} - \rho_{red}) / (\rho_{NIR} + \rho_{red}) \quad (1)$$

Where ρ_{NIR} and ρ_{red} are the reflectance of near infrared (NIR) and red bands, respectively. NDVI values are represented as a ratio ranging value from -1 to 1 but the negative values represent water, values around zero represent bare soil and values over 0.6 represent dense green vegetation.

LST is the radiative skin temperature of ground. It depends on the albedo, the vegetation cover and the soil moisture. LST influences the partition of energy between ground and vegetation, and determines the surface air temperature (Liang, Li, & Xie, 2013).

For a sample selection, the systematic sampling was implemented in this study. It is a statistical technique which used for a selection of elements based on probability sampling

when the population is large and arranged in some order. Cochran (1977) has suggested that the systematic sampling process can be started by selecting an element from the list at random and then every k^{th} element in the frame is selected, where k , the sampling interval. This is calculated as:

$$k = \frac{N}{n} \quad (2)$$

Where n is the sample size, and N is the population size. The advantage of using systematic sampling is that it is straightforward to construct, execute, compare and understand the maximum dispersion of sample units throughout the population, and requires minimum knowledge of the population. However, this method is less protection from possible biases and it can be imprecise and inefficient relative to other design, if the population being sampled is heterogeneous (O'Leary, 2004). In forest inventory, a square sample plot is the most frequently used in longitudinal studies and research (De Vries, 2012). Thus, in this study, the samples were selected by the systematic sampling with nine sampling intervals from the central pixel in a basic type of square sample plots.

RESULTS

For this study, the NDVI values were selected from the day of the first available data in the mid of February 2000 until the end of September 2015. Figure 2 shows the contingency table listing numbers of NDVI observed for each year and day. The presenting days were the same for each year and each year had 23 different days, due to the 16-day slot of recording, starting from 1 to 353. Since there were fewer than 16 days remaining in the year from day 353, the first few days in the following year were used for both the last period of one year and the first period in the following year. When no measurement was recorded at any pixel, no observation in the period of that particular 16 days had a sufficient measurement quality. These insufficient measurements were shown as zero and in a red circle. These data values were then coded as NA (Not Available).

Figure 2. The Contingency Table Listing Numbers of Vegetation Observed for Each Year and Day

year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Sum
day																	
1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
17	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
33	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
49	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	15
65	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	15
81	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
97	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
113	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
129	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
145	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
161	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
177	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
193	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
209	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	15
225	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
241	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
257	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
273	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
289	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	15
305	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	15
321	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	15
337	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	15
353	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	15
Sum	20	23	23	23	23	23	23	23	23	23	23	23	23	22	23	16	357

Figure 3 shows numbers of vegetation index measured at pixels for the same day of every year and its summation for each day. On average, 92.16% of observed temperatures had insufficient quality. The recorded percentages ranged from 57.40% (day 289) to 97.01% (day 33).

Figure 3. The Numbers of NDVI Observations at Pixels for Each Year and Day

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Sum
1	0	6474	6440	6561	6332	6002	5653	6561	6559	6268	6416	5429	5839	6129	6196	6146	93005
17	0	5796	5351	6555	6219	6561	6561	6390	6400	6544	6464	6187	6437	5966	6286	6561	94278
33	0	6436	6561	6282	6198	6561	5861	6518	5864	6561	6474	6421	6560	6128	6561	6482	95468
49	0	6561	6561	6462	6561	6561	6517	6561	6557	6183	6561	6508	6352	6423	6561	0	90929
65	0	5677	6561	6312	6542	6532	6561	6561	5452	6561	6506	5654	6229	6561	6561	0	88270
81	0	6181	6527	6536	6362	6452	5975	6508	6298	6379	6553	4132	6385	6508	6351	6194	93341
97	0	6549	6526	6552	6323	6561	3440	5698	6561	5441	6266	6230	5868	6561	6301	6561	91438
113	0	1677	4041	6093	5272	6405	6167	3985	5550	5522	6333	5544	6367	5711	5687	5770	80124
129	0	2779	5726	2464	6479	1314	5463	6246	4488	4937	4647	5892	6480	6339	5649	5723	74626
145	0	5219	6561	6561	5367	42	6383	6319	4460	4243	6246	2663	446	4678	5683	6427	71298
161	0	6511	3937	6338	4585	5466	5162	1642	5789	5958	5983	3480	6561	794	3648	6539	72393
177	3394	1017	3369	3456	1958	3477	626	6547	4239	6549	6302	6538	4741	6443	6561	0	65217
193	5084	6223	5340	6131	6295	3666	1149	2756	4132	5671	2930	6341	6560	5741	2384	0	70403
209	1986	5470	2451	6306	3154	2406	2332	5428	6364	4529	3768	5863	5634	0	6013	0	61704
225	0	592	2957	6447	1894	6112	4195	830	6561	6079	6510	2942	6532	6561	5116	0	63328
241	4907	4412	1166	342	5616	3613	5878	5517	2909	3633	3002	6561	6561	3972	6558	0	64647
257	5244	4990	6032	4440	4290	6561	1163	555	4763	1586	5050	1068	4303	1033	6268	0	57346
273	3919	1170	5691	1018	3532	6487	5227	5629	2157	1119	3679	5610	3253	5372	0	56495	
289	1642	133	6415	4974	5821	1950	3233	387	2683	6339	6529	4670	6519	1586	5594	0	58475
305	5401	6046	3779	6316	2281	6561	3263	4886	6554	5962	5139	6482	6103	6313	6333	0	81419
321	5736	5492	6184	6207	6174	197	6425	6561	0	5813	5468	6041	6101	5812	5518	0	77729
337	6505	6447	5022	6219	6245	3535	5650	5836	5303	6148	5422	5418	6451	6321	6128	0	86650
353	5971	6467	3882	6271	6164	6382	6561	6559	4902	5952	6190	3869	4843	6404	5446	0	85863
Sum	49789	108319	117080	124843	119664	105549	110705	114078	118017	125015	125878	117612	133482	115237	132775	56403	1774446

Figure 4 shows LST value corresponding to a specified of 8-day period. Therefore, in each year, the number of measuring days was 46. It was similar to the case of NDVI, when no measurement was recorded at any pixel. It was considered that no measurement in the 8-day period had sufficient measurement quality, and the data for those particular times were also coded as NA.

Figure 4. The Contingency Table Listing Numbers of day temperatures observed for Each Year And Day

year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Sum
1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
9	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
17	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
25	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
33	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
41	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
49	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
57	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
65	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
73	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
81	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
89	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
97	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
105	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
113	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
121	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
129	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
137	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
145	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
153	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
161	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
169	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
177	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
185	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
193	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
201	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
209	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
217	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
225	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
233	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
241	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
249	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
257	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
265	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
273	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
281	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
289	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	15
297	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	15
305	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	15
313	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	15
321	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	15
329	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	15
337	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	15
345	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	15
353	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	15
361	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	15
Sum	38	44	46	46	46	46	46	46	46	46	46	46	46	40	46	35	709

Figure 5 shows the number of day temperatures measured at pixels for each recording day and year with the total for each measured day for all years. On average, 29.84% of observed temperatures had insufficient quality, and the percentages ranged from 39.30% (day 273) to 99% (day 73).

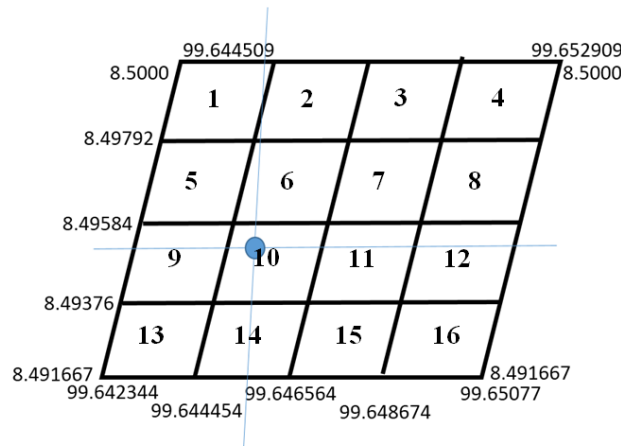
Figure 5. The Numbers of LST Observations at Pixels for Each Year and Day

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Sum
1	0	441	440	423	439	347	200	441	158	427	134	441	434	280	434	420	5459
9	0	431	439	441	411	417	426	276	441	430	441	365	303	437	426	403	6087
17	0	305	339	414	437	422	441	411	439	440	441	441	441	399	411	432	6213
25	0	432	394	441	441	441	441	438	424	438	435	41	430	429	440	441	6106
33	0	441	441	418	421	441	420	431	414	441	441	409	441	419	441	438	6457
41	0	437	427	406	425	441	408	441	411	441	441	441	405	392	441	441	6398
49	0	441	435	441	441	441	325	441	441	439	441	441	441	440	441	441	6488
57	0	441	441	437	441	441	441	441	269	439	441	441	236	393	441	441	6184
65	0	32	440	398	427	441	441	441	202	441	441	153	221	434	441	441	5394
73	0	431	441	441	441	421	439	441	433	441	441	423	434	441	441	441	6550
81	0	283	428	323	439	441	384	326	437	440	441	0	438	441	426	422	5869
89	0	428	441	441	431	408	432	441	415	311	419	338	432	408	440	327	6112
97	0	441	441	441	441	441	309	415	441	219	441	423	423	441	434	441	6192
105	0	427	397	439	436	439	1	394	402	407	376	440	302	0	438	441	5339
113	0	0	359	437	389	441	408	221	202	439	289	436	378	383	298	422	5102
121	0	189	149	272	0	330	380	261	400	339	441	3	437	397	421	415	4434
129	0	111	427	0	441	19	416	424	254	364	243	342	438	441	154	43	4117
137	0	282	268	296	433	192	0	427	396	215	318	430	441	94	429	432	4653
145	0	314	441	367	148	12	441	435	271	17	434	267	53	198	232	440	4070
153	0	371	353	441	381	0	376	430	272	410	362	158	7	393	417	424	4795
161	0	441	31	441	119	421	430	148	323	327	432	210	441	23	0	14	3801
169	0	0	349	417	413	197	56	1	413	434	102	296	441	103	361	441	4024
177	284	0	365	0	107	69	9	441	404	441	309	36	420	441	0	0	3767
185	335	153	103	340	201	383	106	56	123	441	441	441	125	0	389	0	3637
193	320	438	332	198	388	306	26	179	414	0	203	438	441	396	275	0	4354
201	421	431	409	425	340	113	197	247	152	410	70	438	423	193	48	0	4317
209	356	390	99	438	3	22	16	94	113	405	332	333	176	0	258	0	3035
217	0	254	191	0	317	270	293	429	441	99	19	397	424	0	440	0	3574
225	0	15	179	392	184	424	83	64	441	433	0	311	441	0	412	0	3379
233	0	80	259	441	93	403	352	82	441	399	441	0	96	0	225	0	3312
241	339	313	109	54	383	0	419	202	238	0	171	441	441	0	441	0	3551
249	222	340	119	6	400	348	316	412	183	391	270	28	441	52	74	0	3602
257	385	354	440	420	54	39	77	15	0	182	303	141	363	8	437	0	3218
265	106	335	361	60	363	441	115	104	421	35	254	21	113	181	108	0	3018
273	291	142	360	21	224	193	43	17	395	0	96	248	329	217	24	0	2600
281	112	14	429	133	245	194	441	407	343	220	34	237	408	295	407	0	3919
289	59	0	432	104	431	67	244	0	320	440	441	374	0	0	370	0	3282
297	190	21	428	377	313	117	161	40	6	420	98	64	441	209	411	0	3296
305	128	0	93	441	13	8	289	0	441	416	392	424	287	439	47	0	3418
313	402	438	368	421	253	441	66	391	339	421	4	435	432	400	441	0	5252
321	360	134	44	441	437	68	419	438	0	0	7	383	435	78	3	0	3276
329	438	413	437	242	365	0	438	441	0	412	435	431	18	428	421	0	4919
337	441	441	400	377	441	2	440	415	397	405	343	279	441	310	395	0	5527
345	402	330	42	435	407	358	415	280	302	433	429	409	367	441	430	0	5480
353	371	411	373	402	434	393	405	441	393	417	434	321	255	441	0	0	5491
361	408	149	0	353	411	439	437	441	30	389	396	225	297	347	315	0	4737
Sum	6010	12941	14783	15096	15202	12690	13422	13761	14195	15508	14386	13794	15635	12262	15219	8601	213505

The LST data were stored as an integer, so conversion factors are needed. The temperatures were then divided by 50 to become Kelvin, and subtracted with 273.15 to result in corresponding degrees Celsius. After the conversion, the LST data were used to cross check the NDVI data in the same pixel at the same day. However, the size of NDVI pixel and LST pixel were different as 250 m² and 1 km², respectively. It was considered that 16 of NDVI pixels with the area of 250 m² each combining into one LST pixel. Therefore, an NDVI pixel located in any LST pixel needed to be identified. To achieve this, firstly the coordinates of the corners for LST pixels were required. The URL of <http://landweb.nascom.nasa.gov/cgi-bin/developer/tilemap.cgi> provided the coordinates of the corners for any pixel when latitude and longitude of the center point of the pixel were entered. The following steps were an example to realize the required NDVI pixel from the website in this study. The first step was to identify When Sinusoidal map projection, 1-km pixel size, Tile/image coordinates, and Forward mapping were chosen from the options, entering the coordinates of 8.495 and 99.645, the approximated center point of the sample LST pixel, thus located the pixel centre at line 180 and sample 1026 (rounding decimals) in the tile with vertical and horizontal coordinates of 8 and 27, respectively. To get the latitude and longitude coordinates of the corners of this pixel, the Inverse mapping was selected as an option, entering the numbers 8, 27, 179.5 (a subtraction of 0.5 from the initial value) and 1025.5 (a subtraction of 0.5 from the initial value) resulted in the coordinates of the top left corner of the pixel Latitude 8.5000 and Longitude 99.64450. In the same way, the coordinates of the top right corner were achieved by entering the numbers 8, 27, 179.5 and 1026.5 (an addition of 0.5 from the initial value), and the result was Latitude 8.5000 and Longitude 99.652935. To get coordinates for the bottom corners, entering

8, 27, 180.5 and 1025.5 gave the result of Latitude 8.491667 and Longitude 99.642344, while entering 8, 27, 180.5 and 1026.5 showed the result with Latitude 8.491667 and Longitude 99.65077 for the bottom left corner of the pixel. Subsequently, the locations and corners of the 16 pixels inside of the LST pixel were accurately determined with the same technique. In this study, every NDVI pixel was selected at the sub-pixel numbered 10 of any LST pixel as shown in Figure 6 to get it close to the center point of the LST pixel as much as possible.

Figure 6. The Sample NDVI Pixel Is Located in Sub-Pixel Numbered 10 of the Central LST Pixel

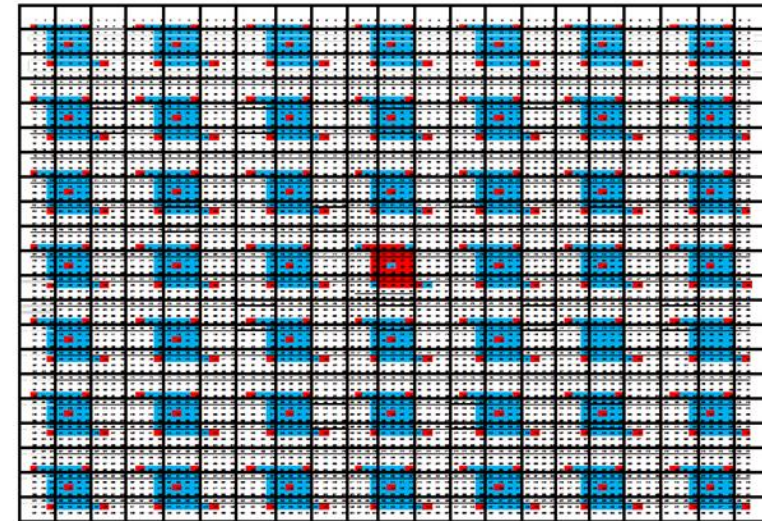


The location of the pixel matching with the location of the pixel of the LST provided a key for merging these data tables by location (pixel) and time (year-day). This key was an integer from 1 to 16 (10 in this case). In each table, the pixel value was defined as an integer in the range 1 to nP , where nP was the number of pixels in the table. For an NDVI region, the value for a pixel in row r and column c of the selected area was $c + nR(r - 1)$ where nR was the number of rows of pixels in the selected area. In this study, nP for NDVI data table was 6561 and nR was 81, while the corresponding LST data table nP was 441 and nR was 21, respectively. The key determined how the pixel values for the two tables were matched for a smaller region based on 3 km, in this study, for each direction. For example, when the key was 10, LST pixel 6 matched four NDVI pixels, while LST pixels 1 and 36 matched six NDVI pixels. Furthermore, LST pixel 7, 13, 19, 25 and 31 matched nine NDVI pixels, and LST pixels 2-5, 12, 18, 24 and 30 matched eight of the NDVI pixels. The remaining 15 of LST pixels matched 16 of NDVI pixels as seen in Figure 7(a). In this figure, the red color in the middle is the group of NDVI pixels at the central area or the location 25. Because LST was selected based on 3 km in each direction, the NDVI pixels were selected 12 cells away in the grid box as displayed in Figure 7(b).

Figure 7 (a). 49 Locations of LST Table Data and **(b).** 49 Locations of NDVI among the Area

1																						6
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	
	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	
	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	
85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	
107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	
129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	
151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	
173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	
195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	
217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	
239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	
261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	
283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	
305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	
327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	
349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	
371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	
393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	
415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	
437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	
459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	
481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	
503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	
525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	

(a)



(b)

DISCUSSION AND CONCLUSION

This study looked into a technique to match NDVI and LST data from MODIS sensor. It was found that NDVI and LST data can be provided a relatively good approximation of the matching position when merged with key 10. The NDVI sampling pixels were selected 12 cells away on grid box from LST sampling data, of which the selection based on the further position of 3 km in each direction. Therefore, it can be seen that it depends on the characteristics and structures of the data for selecting key number and arranging the pixels in the grid. With this systematic technique, the NDVI values of the area can be further cross checked with the LST values before the analysis step. This technique can also be applied to match any set of two remote sensing data with different recording times and areas.

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DEFINITION SYSTEM AND VERBALISM AS STIMULI TO SOCIOLINGUISTIC ACUMEN

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ABSTRACT

The learners' breadth of knowledge on the English language is greatly attributed to their strategies of finding meaning to new words and their verbal dynamism to address immediate needs as a member of an academic and cultural community. Employing descriptive design using adopted and expert validated questionnaires and checklists, this study aimed at ascertaining the English language learning scheme and its correlation with sociolinguistic intelligence among 50 randomly selected respondents representing 90.91% of the English major teacher education students of a state university in Cagayan Valley, Philippines in SY 2014-2015 using means, percentages and correlational procedures at 0.05 level of significance. This educational venture unveiled that the respondents employ paralinguistic definition (4.21, always) over pragmatic (4.11, often), structural (3.72, often) and referential (3.69, often) definition strategies while majority of them display normal verbal activity (39 or 78.00%). Positive significant correlations transpired as the respondents' English language learning scheme was tested with sociolinguistic intelligence along metacognitive, cognitive, motivational and behavioral intelligence. Hence, the respondents' definition system and verbalism could improve their sociolinguistic intelligence thereby indicating favorable degree of their maturity, awareness or capability to grasp more directly what happens around them, thus think and act more appropriately.

KEY WORDS: Definition system, sociolinguistic acumen, verbalism

INTRODUCTION

Nueva Vizcaya State University is a microcosm of cultural groups from the southern part of the province. The university through its various educational programs lures students who are culturally affiliated with the Igorots, Ifugaos and Isinais among others. Because of multiculturalism, English language education has become a challenging factor as manifested by low performance of teacher education students in the Licensure Examination for Teachers (Velasco, 2016). This could be attributed moreover to their apprehension in using the English language in performing speaking activities in the classroom (Salas & Tallungan., 2015).

One performs schematic definition that takes an enormous part of his learning. English language learning marks the continual quest for substance in any learning experience one endeavors. It sprouts from creating complex patterns of expanding knowledge which is converted into a set of verbal and nonverbal symbols expressed in perceptions, preferences and personal traits. Further, it is demarcated by various configurations interwoven by unique experiences to create meanings that one attaches to every object he encounters.

In this perspective, English words, objects and situations take their meaning in varied forms (Richard & Renandya, 2003). The referential, denotative or lexical meaning of words is based on its technical purpose. Knowledge about an object is strengthened by considering its dictionary, encyclopedia, online meaning or any other references that offer technical meaning of words. Moreover, the structural meaning of an object is based on analysis of dissected parts of a word, e.g., prefix, base word and suffix. Further, objects may take their pragmatic, connotative or contextual meaning based on exposures and experiences of an individual. This is tantamount to the functional meaning of the object. On another side, the paralinguistic meaning of an object is based on nonverbal factors that surround the communicative situation like tone, volume, pitch, actions and emotions among others.

Words, objects and situations are used by man in verbal activities which are inevitable. The degree to which one extends to his immediate society hinges on the strength of his language learning. Sociolinguistic intelligence is the awareness or the capability to "see" and grasp more directly what is going on in the world through the use of language in inter-cultural activities. Once we "see" we can think and act more appropriately (Lane, 2008).

It is in this light that this study specifically aimed to seek answers on how the Bachelor of Secondary Education (BSED) major in English students of Nueva Vizcaya State University-Bambang Campus describe their English language learning scheme through their extent of use of definition strategies along referential definition, structural definition, pragmatic definition and paralinguistic definition and the extent of their verbal activity; how do they evaluate their level of their sociolinguistic intelligence along metacognitive intelligence, cognitive intelligence, motivational intelligence and behavioral intelligence; if significant relationships exist in the extent of the respondents' use of definition strategies and their extent of verbal activity; and if English language learning scheme of the respondents through their extent of use of definition strategies and their extent of verbal activity influences their level of sociolinguistic intelligence.

METHODOLOGY

The descriptive approach was used in this study which mainly determined how English language learning scheme through definition strategies and verbal activity influences the sociolinguistic intelligence of the randomly selected respondents composed of 50 BSED-English students of the Nueva Vizcaya State University, school year 2014-2015, which sample population takes 90.91% of the target population. Questionnaires were used to gather the needed data.

In the survey questionnaire on definition strategies, the respondents were asked to rate the extent of their use of the mechanisms in the acquaintance of communicative symbols. The Verbal Activity Scale (VAS), which was adopted from the questionnaire developed by Rozilyn Miller in July 2002 as contained in *Task force on high school curriculum: Communication apprehension curriculum resource guide*, was used to gauge the respondents' verbal dynamism. In the sociolinguistic intelligence survey which was based from the questionnaire developed by Soon Ang and Christopher P. Early contained in the book "*Cultural Intelligence*" published in 2003, the respondents were asked to assess their extent of their ability to use language and language behaviors in social interactions.

Means and percentages were used to describe respondents' definition strategies, verbal activity and sociolinguistic acumen while Pearson correlation coefficient (r) was employed in unveiling the degree of relationships of extent of use of definition strategies and verbal activity; and of the English language learning scheme and the sociolinguistic intelligence of the respondents, at 0.05 level of significance.

RESULTS AND DISCUSSION

Language learning could be achieved by being acquainted with various English words. The strategies used by the respondents of this study in putting meaning to words and eventually understanding and utilizing them in communicative processes are discussed in the succeeding section.

The English language learning scheme and degree of verbal activity of the BSED-English students of Nueva Vizcaya State University-Bambang Campus

Table 1. reveals that among the strategies considered in this study, paralinguistic definition garnered the highest mark at 4.21 with a qualitative description of always. This signifies that the English major students of the university become oriented to English words best when various parameters of paralinguistic such as intonation, volume, gestures and facial expression which are attached to the words being expressed by the speaker.

This finding is backed by the concept of interpersonal communication which does not only involve the explicit meaning of words, the information or message conveyed, but also refers to implicit messages, whether intentional or not, which are expressed through non-verbal behaviors. (<http://www.skillsyouneed.com/ips/nonverbal-communication.html>)

Table 1.

Extent of Use of Definition Strategies by the Respondents

Strategy	Means	Description
Referential Definition	3.72	Often
Structural Definition	3.69	Often
Pragmatic Definition	4.11	Often
Paralinguistic Definition	4.21	Always

Least among the definition strategies used by the selected respondents is structural definition at 3.69, with qualitative category of often. This strategy is attached to the vocabulary and word recognition skills of the learner which are among the most difficult language skills to develop. Both skills require frequency of reading which is a language-based activity which does not develop naturally, and for many learners, specific decoding, word recognition, and reading comprehension skills must be taught directly and systematically. (<http://www.readingrockets.org/article/why-some-children-have-difficulties-learning-read>)

Table 2 presents the frequency and percentage distribution of the respondents as to the extent of their verbal activity which defines how much an individual communicates with the people around him using the spoken language.

Table 2.

Frequency and Percentage Distribution of the Respondents as to the Extent of Their Verbal Activity

Extent	Range	Frequency	Percentage
High	Above 38	7	14.00
Normal	22-38	39	78.00
Low	Below 22	4	8.00
Total		50	100.00

Majority of the respondents or 39 (78.00%) have normal level of verbal activity. On the other hand, only 7 respondents or 14.00% have high level of verbal activity while 4 respondents or 8.00% of the sample population have low level of verbal activity.

English major students are expected to have facility of the English language. Being expressive can be achieved through an expanded knowledge or understanding of the language which requires a verbal function to either generate or interpret meaningful spoken or written words or symbols. The level of verbal activity of the respondents is attributed to their inclination to paralinguistic definition as revealed in this study.

The Respondents' Sociolinguistic Intelligence

The sociolinguistic intelligence questionnaire using Likert Scale was administered to the respondents and the summary of their level of sociolinguistic intelligence is disclosed in table 3.

It could be noticed in the table that highest among the areas in which the respondents were described is motivational intelligence with a mean of 3.84 or high and next to it is metacognitive intelligence with a mean of 3.81 or high. Moreover, behavioral intelligence comes next with a mean of 3.75 or high and least is cognitive intelligence with a mean of 3.64 or still high.

Metacognitive Intelligence

The sociolinguistic intelligence of an individual ascertains the level of his maturity in terms of the strategies he uses in conveying his thoughts to the people around him through the use of language (Ang, 2003). The extent of the respondents' sociolinguistic intelligence as to their metacognitive intelligence refers to the strategies that the respondents use in translating his ideas, opinions and attitudes to the people around him through language.

Table 3.

Level of Respondents' Sociolinguistic Intelligence

Sociolinguistic Intelligence along:	Mean	Qualitative Description
Metacognitive	3.81	High
Cognitive	3.64	High
Motivational	3.84	High
Behavioral	3.75	High

The level of the respondents' metacognitive intelligence is described by the overall mean of 3.81 or high. This is attributed foremost by their being conscious of the cultural knowledge they have when interacting with other people and their being mindful of what others may feel through their words and actions. Moreover, the respondents' metacognitive intelligence is characterized highly by their being able to adjust their knowledge as they interact with other people from unfamiliar culture and to reflect on their speech and actions when dealing with other people.

Among the indicators of metacognitive intelligence, the least that describes the respondents is that they know the cultural values and religious beliefs of other cultures. Nueva Vizcaya State University- Bambang Campus is an intersection of diverse cultures demarcated by various ethnic groups within the province like the Igorots, Isinai, Ifugaos and Ilocanos among others. Majority of the students come from Bambang, Dupax del Sur and Norte, Aritao, Kayapa and Kasibu or municipalities from Northern Nueva Vizcaya.

Knowing the different cultures of people in a social unit is a challenging task. Over time, the mixture of cultures in the university has naturally developed the sociolinguistic skills of the students, thereby developing their versatility in mingling with people that comprise their social life.

Cognitive Intelligence

The extent of the respondents' sociolinguistic intelligence as to their cognitive intelligence refers to their level of knowledge of various cultures around them. The level of their metacognitive intelligence is described by the overall mean of 3.64 or high. This is ascribed by the respondents' ability of understanding that each person is unique and so is their cultural background. The respondents as well display high perceptual intelligence under this domain by reflecting on the appropriateness of language in social communication dealings, as well as by recognizing the importance of living the concept of cultural relativism.

On the other hand, the respondents find it tough to know the arts and crafts of other cultures, to familiarize with the marriage systems of other cultures and to know the legal and economic systems of other cultures. This finding takes relevance in the meaning of cultural diversity which encompasses differences in race, gender, ethnic group, age, personality, cognitive style, tenure, organizational function, education, background; which do not only involve how people perceive themselves, but how they perceive others which affect perceptions and their interactions with others (Greenberg, 2014).

Motivational Intelligence

The motivational constructs which characterize the respondents as to their confidence, certainties and willingness to carry out communicative activities reveal their overall level of motivational intelligence at 3.84 or high.

Noteworthy among the indicators which is qualitatively described as very high with a mark of 4.28 is that the respondents are open to new experiences which disclose their curiosity, broad-mindedness and imagination. This finding that defines the high level of drive of the respondents is reflexive of the need of the respondents to explore the benefits of diversity as further cited by Greenberg (2014) that an individual or organization's success and competitiveness depends upon their ability to embrace diversity and realize the benefits like increased adaptability which can supply a greater variety of solutions to problems and variety of viewpoints which provide a larger pool of ideas and experiences.

Behavioral Intelligence

This study also determined the extent to which the respondents put into action their desire to engage in sociolinguistic activities to be able to increase their knowledge of the English language. This speaks of extent of the respondents' sociolinguistic perceptual intelligence as to their behavioral intelligence with an overall mean of 3.75 or high.

All indicators under this domain are qualitatively described as high, most notable of which is the respondents' varying of the rate of their speaking when a cross-cultural situation requires it, changing their nonverbal behavior when a cross-cultural interaction requires it, and their use of pause and silence differently to suit different cross-cultural situations.

These parameters of social communication are parallel with the most dominant strategy that the respondents use. The respondents deem it easier to indulge in conversations with other people if they use appropriate speed in speaking, accompany speaking with proper gestures and be silent at times to listen to the person they speak with.

Relationship in the Extent of the Respondents' Use of Definition Strategies and Their Extent of Verbal Activity

Language learning through exposure hands in confidence to the second language learner to engage actively in communicative processes whether verbal or nonverbal. Table 4 discloses the relationship of the extent of the respondents' use of definition strategies in expanding knowledge in English language and their extent of verbal activity.

Three strategies yielded significant relationship as indicated by the computed *r* values for referential, structural and pragmatic definition strategies whose converted *t*-values are all greater than the critical *t*-value of 2.0096 at 0.05 level of significance. This means that there is significant relationship between the above stated strategies with the respondents' verbal activity. This is ascribed to the use of the majority of the respondents of referential, structural, and pragmatic definition strategies at an extent described qualitatively as often and the extent of verbal activity of the majority of the respondents described qualitatively as normal. It may be inferred as well that less use of these strategies of definition means less involvement in verbal communications.

Table 4.

Relationship of the Extent of the Respondents' Use of Definition Strategies in Expanding Knowledge in English Language and Their Extent of Verbal Activity

Verbal Activity Vs.	Computed r	t-value	Interpretation
Technical Definition	0.3109	2.2663	Significant
Structural Definition	0.4682	3.6710	Significant
Pragmatic Definition	0.3890	2.9255	Significant
Paralinguistic Definition	0.2649	1.9033	Not Significant

Notes. Critical $t = 2.0096$ at 0.05 Level of Significance.

Conversely, the paralinguistic definition strategy does not correlate significantly with the verbal activity of the respondents. This finding implies that the extent to which the respondents use the descriptors of paralinguistic language does not relate significantly with the extent to which they engage in conversations. Eventually, it is because paralinguistic definition strategy does not make use typically of verbal language but more of nonverbal language which the respondents use most of the time as revealed in this study.

Relationship of Respondents' Use of Definition Strategies and Their Extent of Verbal Activity with Their Level of Sociolinguistic Intelligence

The extent of the respondents' use of definition strategies in expanding knowledge in English language and their extent of verbal activity are likewise tested for significant relationship with the respondents' level of sociolinguistic intelligence. Tables 5 and 6 unveil statistics that lent answers to this research question.

Table 5.

Relationship of the Respondents' Extent of Use of Schematic Definition Strategies in Expanding Knowledge in English Language with Their Level of Sociolinguistic Perceptual Intelligence

Sociolinguistic Intelligence	Statistics	Referential Definition	Structural Definition	Pragmatic Definition	Paralinguistic Definition
Metacognitive Intelligence	Computed r	0.2440	0.4410	0.2430	0.3700
	<i>p</i> -value	0.0880	0.0010	0.0900	0.0080
	Interpretation	Not Significant	Significant	Not Significant	Significant
Cognitive Intelligence	Computed r	0.1910	0.5310	0.3260	0.5200
	<i>p</i> -value	0.1830	0.0000	0.0210	0.0000
	Interpretation	Not Significant	Significant	Significant	Significant
Motivational Intelligence	Computed r	0.1560	0.4070	0.4120	0.4010
	<i>p</i> -value	0.2780	0.0030	0.0030	0.0040
	Interpretation	Not Significant	Significant	Significant	Significant
Behavioral Intelligence	Computed r	0.3330	0.4790	0.3980	0.4860
	<i>p</i> -value	0.0180	0.0000	0.0040	0.0000
	Interpretation	Significant	Significant	Significant	Significant

Structural definition strategy yielded significant relationships with all indicators of socio-linguistic intelligence. This means that there is a significant relationship between the respondents' level of use of the structural definition strategy and their sociolinguistic intelligence. Structural definition is the least among the strategies used by the respondents. This strategy allows the respondents to analyze words based on its isolated parts. Through this finding, it could be inferred that the respondents' level of maturity in relating with other people through the use of language is not greatly influenced by their mastery of prefixes, suffixes and base words as well as of etymology.

Moreover, pragmatic definition strategy yielded significant relationships with the respondents' cognitive, motivational and behavioral intelligences. This means that there is a significant relationship between the respondents' level of use of the pragmatic definition strategy and their sociolinguistic intelligence as to the three domains above cited. This suggests that the maturity of the respondents in engaging with communicative processes through their knowledge, drive and conversational actions is inclined with their scheme of learning words based on how they are used in practical situations. This finding shares some light with Crawford (2014) who asserted that physical stages of human growth will always be accompanied by linguistic, emotional and social developments. The respondents being college students have acquired holistic human growth which defines their sociolinguistic perceptual intelligence.

Lastly, paralinguistic definition strategies yielded significant relationships for all indicators of socio-linguistic intelligence. This means that there is a significant relationship between the respondents' level of use of the paralinguistic definition strategy and their sociolinguistic intelligence. Paralinguistic definition is the most used strategy by the respondents who apparently consider expressing of thoughts accompanied by emotions, gestures, volume, pitch and speed among others. This strategy greatly effects to the respondents' maturity in engaging themselves in social activities which involve communication.

Table 6.

Relationship of the Respondents' Extent of Verbal Activity with Their Level of Sociolinguistic Perceptual Intelligence

Socio-Linguistic Intelligence	Statistics	Verbal Activity
Metacognitive Intelligence	Computed r	0.1310
	p-value	0.3640
	Interpretation	Not Significant
Cognitive Intelligence	Computed r	0.2900
	p-value	0.0410
	Interpretation	Significant
Motivational Intelligence	Computed r	0.6050
	p-value	0.0000
	Interpretation	Significant
Behavioral Intelligence	Computed r	0.2810
	p-value	0.0480
	Interpretation	Significant

Table 6 displays the relationship of the respondents' extent of verbal activity with their level of sociolinguistic intelligence. Among the indicators of sociolinguistic intelligence, it is only with the metacognitive intelligence that the respondents' verbal activity is not significantly correlated. With computed p -values less than 0.05, cognitive, motivational and behavioral intelligences have significant relationships with the respondents' verbal activity.

The significantly correlated strategies define the level of cognitive development or expansion of an individual. Sociolinguistic intelligence on the other hand defines the social maturity that relates to cognitive development, according to Robert Kegan's "Awesome Theory of Social Maturity," at 2007 MentalHealth.net article penned by Dr. Mark Dombeck as cited by Rush (2014). Further, Barr (2014) posited that verbal communication activities can teach effective communication skills and assist learners to achieve meaningful personal interaction goals.

CONCLUSIONS AND RECOMMENDATIONS

After careful investigation and handling of data the following conclusions were derived.

The BSED English major students of NVSU use most constantly the paralinguistic definition scheme as strategy in expanding their knowledge in the English language. As to the extent of verbal activity of the respondents, majority of them have normal level of verbal activity.

The respondents' sociolinguistic intelligence as to metacognitive, cognitive, motivational and behavioral intelligences is high.

There is significant relationship between the extent of verbal activity of the respondents and their extent of use of referential, structural and pragmatic definition strategies. On the other hand, the paralinguistic definition strategy does not correlate significantly with the verbal activity of the respondents.

Referential definition strategies yielded significant relationship with behavioral intelligence. On the other hand, structural and paralinguistic definition strategies yielded significant relationships with all indicators of sociolinguistic intelligence, while pragmatic definition strategy yielded significant relationships with the respondents' cognitive, motivational and behavioral intelligences. Furthermore, among the indicators of sociolinguistic intelligence, it is with cognitive, motivational and behavioral intelligences that the respondents' verbal activity is significantly correlated.

With the findings of this study, the following are recommended:

1. The BSED English students of the university may hone their skills in English language by developing a holistic interest of the four schemes of definition thoroughly discussed in this study.. Aside from this, the students may have the willingness to engage in task-based lessons in the English subject that they may learn to speak out their thoughts appropriately considering the classroom as their speech laboratory.

2. After having unveiled in this study the extent of verbal activity of the BSED- English students as well as their extent of use of schematic definition strategies, the teachers may attune their strategies in language teaching to the needs of their students. To meet what is expected of the English major students, the teacher may develop their verbal activity by letting them engage in communication tasks which may address their patterns of defining English words.
3. The sociolinguistic intelligence of the BSED English language students is high for all indicators like metacognitive, cognitive, motivational and behavioral intelligences. This speaks of the maturity of the respondents in using language in social interactions which may involve various cultures. To remedy the issues of culturalism, learners may embrace heterogeneity and diversity as a norm. Understanding different cultures in a diverse social unit like the school may help the students survive the challenges of social life.
4. Since all licensure examinations require relatively satisfactory English language skills which ease up the understanding of the test items, the students may be equipped with critical and creative thinking skills through the facility of the language. This may materialize by adapting the students to the language requisites of the Licensure Examination for Teachers through a more intensive preparation in language skills, vocabulary and reading comprehension as components of the review program of the College of Teacher Education.
5. Future researchers may consider studies related to this study with focus on correlating sociolinguistic intelligence with some other variables like ethnicity, economic status of family, academic performance, participation in extra-curricular activities, apprehension in social interactions, and stress coping mechanisms of students. Future researches may likewise correlate same variables with language learning scheme through verbal activity and definition strategies.

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A SURVEY OF STOCK SPLITS AND REVERSE STOCK SPLITS OF LISTED COMPANIES IN THAILAND

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ABSTRACT

This study investigated the changes in par value of both stock splits and reverse stock splits of listed companies in the Stock Exchange of Thailand (SET) and the Market for Alternative Investment (MAI) from 2001 to 2016. This study found that Thai-listed companies experienced three types of changes in par value: (1) stock splits (92.58% of 310 listed companies), (2) reverse stock splits (2.58% of 310 listed companies), and (3) a combination of stock splits and reverse stock splits (4.84% of 310 listed companies). The results of a stock splits survey indicated that the listed companies in the non-SET100 index represented most of the listed companies that split shares. Moreover, comparison of the P/E ratios with the benchmark P/Es revealed that most of the listed companies were companies with low stock prices. This finding may not be appropriate for this context, since the listed companies that are suitable for stock splits, per the guidelines provided by the SET, should be stocks that have low liquidities, low number of issued and outstanding shares, and high prices. Furthermore, most listed companies that split shares often announced other news at the same time of the announcement of the stock splits approvals. This may be due to the listed companies' motivation to create demand by issuing good news to encourage investors to buy their shares; thus, investors should consider performing a fundamental analysis prior to make investment decisions. The results of a reverse stock splits survey indicated that reverse stock splits were not popular for listed companies in Thailand. Only nine companies listed in the SET performed reverse stock splits. In addition, only a few listed companies identified reasons for reverse stock splits being restructuring as part of their rehabilitation plans.

KEY WORDS: Change in par value, stock splits, reverse stock splits, SET, MAI

INTRODUCTION

Many listed companies in foreign countries have carried stock splits. According to the U.S. Securities and Exchange Commission (SEC), listed companies often engage in stock splits to lower the market prices of the stocks to enable individual investors to buy shares (U.S. Securities and Exchange Commission, 2010).

While reverse stock splits are also a popular financial instrument for listed companies in foreign countries, the U.S. Securities and Exchange Commission (SEC) indicates that listed companies often engage in reverse stock splits because share prices are too low, which does not attract investors to buy shares (U.S. Securities and Exchange Commission, 2000).

In Thailand, the Public Limited Companies (No.2) Act, B.E. 2544 (2001), amended section 50 of Public Limited Companies Act, B.E. 2535 (1992), changing the phrase, “each share of the company shall have an equal value at Baht 5 per share” to “each share of the company shall have an equal value.” Therefore, a listed company could reduce its par value to the lowest level at Baht 0.01 per share.

Previously, many listed companies in Thailand were interested in stock splits. This may be due to the announcement of stock splits affecting trading in the stock market and the psychological impact on the trading behavior of investors. With the reduction in par value, the stock price will move to the optimal trading range, thereby attracting individual investors to buy a company's shares. Moreover, the increase in number of shares outstanding may improve the liquidity of the stock and expand the shareholder base. Furthermore, reverse stock splits were not popular for listed companies in Thailand.

LITERATURE REVIEW

Many prior studies have examined stock splits, such as the study of market reaction to stock splits (Elfakhani & Lung, 2003; Ikenberry, Rankine & Stice, 1996; Lyroutdi, Dasilas, & Varnas, 2006; McNichols & Dravid, 1990). The literature also examines the liquidity changes following stock splits (Copeland, 1979; Lamoureux & Poon, 1987; Lakonishok & Lev, 1987; Conroy, Harris, & Benet, 1990). In addition, several studies have approached other issues of stock splits, such as shareholder structure after the stock splits (Dennis & Strickland, 2003; Gorkittisunthorn, Jumreornvong, & Limpaphayom, 2006).

Moreover, many prior studies have been conducted on reverse stock splits, such as studies on the price impact of reverse stock splits (Kiang, Ammermann, Fisher, Fisher, & Chi, 2009; Koski, 2007; Martell, & Webb, 2008) and studies about reverse stock splits and shareholder wealth (Kim, Klein, & Rosenfeld, 2008; Woolridge, & Chambers, 2008).

A literature review of the regulation on par value reviewed that, in the United States, there is no minimum par value for common shares under the Model Business Corporation Act (1950) (Booth, 2005). However, some countries cancelled the regulation of the minimum par value of common stock, such as Taiwan (Taiwan Stock Exchange Corporation, 2014). Furthermore, some countries have revised the regulation of minimum par value, such as India, which changed the par value of stock of ten Rupees (Rs.10) to be one Rupee (Rs.1) (Securities and Exchange Board of India, n.d.).

OBJECTIVES OF THE STUDY

This study seeks to survey the change in par value of the listed companies in SET and MAI from 2001 to 2016, specifically with regard to the following issues:

1. Overview of stock splits and reverse stock splits, and types of changes in par value,
2. Stock splits - types of companies that split shares, stock splits ratio, price level of stocks that split shares, the effects of other news announcements with announcement of stock split approvals, change in share price, and case studies of stock splits, and
3. Reverse stock splits - types of companies with reverse stock splits, reverse stock splits ratio, the effects of other news announcements with announcement of reverse stock split approvals, and reasons for performing reverse stock splits.

SCOPE OF STUDY

This study surveyed only the listed companies in SET and MAI from 2001 to 2016, excluding property funds and delisted companies.

RESEARCH METHODOLOGY AND DATA COLLECTION

The documentary research method was used in this study by researching and collecting secondary data from the annual registration statement (Form 56-1); financial statements and notes to financial statements; laws and notifications of the Securities and Exchange Commission, Thailand (SEC); SET; MAI; and the Office of the Council of State. The data used in the analysis came from 310 companies that changed their par values of shares (278 SET and 32 MAI).

RESULTS

Overview of Stock Splits and Reverse Stock Splits

During the 16-year period from 2001 to 2016, there were a combined total of 310 companies that changed their par values of shares from SET and MAI (278 SET and 32 MAI). On average, for the period under investigation, the companies that changed their par values of shares made up 3.70% of the total number of listed companies in SET and MAI. There were 301 companies that split shares (97.10% of total companies), and the remaining nine companies performed reverse stock splits (2.90% of total companies). On average, during this 16-year period, stock splits and reverse stock splits made up 3.59% and 0.11% of the total number of listed companies in SET and MAI, respectively.

Types of Changes in Par Value

This study found that the listed companies had three types of changes in par value: (1) stock splits (92.58% of 310 listed companies), (2) reverse stock splits (2.58% of 310 listed companies), and (3) combination of stock splits and reverse stock splits (4.84% of 310 listed companies). The results are presented in Table 1.

In practice, the Stock Exchange of Thailand (SET) has no guidelines about changing par values of shares in the cases of both stock splits and reverse stock splits more than one time. Stock splits and reverse stock splits are granted by the board of directors of each listed company and also require an approval from shareholders (at least three-fourths of the total attending shareholders with voting rights).

This study revealed that most listed companies (85.48% of 310 listed companies) often changed their par values of shares one time, while a few listed companies (14.52% of 310 listed companies) changed their par values of shares more than once.

Table 1.

Types of Changes in Par Value

Types of Changes in Par Value	Stock Markets		
	SET companies (Percentage)	MAI companies (Percentage)	Total companies (Percentage)
1. Stock splits	256 (92.1%)	31 (96.9%)	287 (92.6%)
1.1 Stock splits one time	229 (82.4 %)	30 (93.8 %)	259 (83.5%)
1.2 Stock splits two times	26 (9.4%)	1 (3.1%)	27 (8.7%)
1.3 Stock splits three times	1 (0.4%)	0 (0.0%)	1 (0.3%)
2. Reverse stock splits	8 (2.9%)	0 (0.0%)	8 (2.6%)
2.1 Reverse stock splits one time	6 (2.2%)	0 (0.0%)	6 (1.9%)
2.2 Reverse stock splits two times	2 (0.7%)	0 (0.0%)	2 (0.6%)
3. A combination of stock splits and reverse stock splits	14 (5.0%)	1 (3.1%)	15 (4.8%)
3.1 SS one time and RS one time	10 (3.6%)	1 (3.1%)	11 (3.5%)
3.2 RS one time and SS one time	1 (0.4%)	0 (0.0%)	1 (0.3%)
3.3 SS one time, RS one time, and then SS one time	1 (0.4%)	0 (0.0%)	1 (0.3%)
3.4 SS one time and RS two times	2 (0.7%)	0 (0.0%)	2 (0.6%)
Total	278 (100.0%)	32 (100.0%)	310 (100.0%)

Notes. SS = Stock splits, RS = Reverse stock splits.

Types of Companies that Split Shares

The purposes of stock splits are to increase trading liquidity and expand shareholding to individual investors. The SET provided guidelines for listed companies to follow when engaging in stock splits, which included assigning stocks low liquidity, a low number of issued and outstanding shares, and high prices (The Stock Exchange of Thailand, 2015).

The top three companies that split shares by index were the listed companies in the Non-SET100 index or small-sized stocks (60.32% of total listed companies in the Non-SET100 index), the listed companies in the SET51-100 index or medium-sized stocks (56.00% of total listed companies in the SET51-100 index), and the listed companies in MAI (53.00% of total listed companies in MAI).

The results of a stock splits survey indicated that the listed companies in the Non-SET100 index (small-sized stocks) represented the highest number of the listed companies that split shares. This may be an issue for attention, since this is not in line with the guidelines of SET.

However, this survey revealed that the companies that ranked second in the number of split shares were listed companies in the SET51-100 index (medium-sized stocks), which may be considered appropriate, since these companies were in the 100 listed companies on SET in terms of large market capitalization.

In some cases, stock price per share was high, with a low number of issued and outstanding shares; this was a suitable reason for increased liquidity for the split stocks, since stock splits will reduce stock price per share and increase the number of issued and outstanding shares, making the stock more affordable for individual investors.

For the 269 listed companies in SET, the top industries were property and construction, services, and industrials, which accounted for 23.42%, 19.70%, and 15.24% of the total amount of companies in SET, respectively.

Among the 32 listed companies in MAI, the top industries were industrials (34.38% of the total companies in MAI), services (18.75% of the total companies in MAI), and resources (15.63% of the total companies in MAI).

Stock Splits Ratio

This study found that top three stock splits ratios were: a ten for one stock split (47.84% of total stock splits), a five for one stock split (15.28% of total stock splits), a ten for five stock split (9.63% of total stock splits). Furthermore, this study found that there were 49 companies (16.28% of total stock splits) that after split shares had par value lower than Baht 0.50.

Price Level of Stocks that Split Shares

This survey used the Price to Earnings Ratio (P/E ratio) to evaluate the value of shares, because it is a common ratio used by investors and was calculated using the market value per share divided by earnings per share. Upon comparing the P/E ratios with the benchmark P/Es of the sector or industry group with the same measures as splits companies, this analysis revealed that most listed companies that split shares were companies with low stock prices and P/E ratios lower than benchmark P/Es, which meant that the market stock prices were lower than the stocks' intrinsic value, as shown in Table 2.

The results, classified by index, showed that most listed companies that had low stock prices and P/E ratios lower than benchmark P/Es were listed companies in the non-SET100 index (small-sized stocks) and listed companies in MAI. This may not be appropriate for the listed companies to split shares, because they were small-sized stocks, and price per share was not high.

In summary, for the 16-year period examined, the listed companies that split shares had both low and high stock prices. However, considering only the stock price level may not be enough to judge the suitability of the stock splits. Several other factors must also be

considered, including liquidity, stock volume in the stock exchange, and the number of issued and outstanding shares.

Table 2.

Result of Comparing P/E Ratios with Benchmark P/Es

Comparing P/E ratios with benchmark P/Es	Number of listed companies that split shares (Percentage) classified by stock markets		
	SET Companies	MAI Companies	Total Companies
P/E < Benchmark P/E	108 (50.0%)	11 (52.4%)	119 (50.2%)
P/E = Benchmark P/E	2 (0.9%)	0 (0.0%)	2 (0.8%)
P/E > Benchmark P/E	106 (49.1%)	10 (47.6%)	116 (48.9%)
Total	216 (100.0%)	21 (100.0%)	237 (100.0%)

Notes. Data from 301 companies that split shares were obtained. The actual amount of data used in Table 2 came from 237 companies (78.74% of 301 companies). The dataset was reduced by 64 companies because of the incomplete data.

The Effects of Other News Announcements with Announcement of Stock Split Approvals

This survey found that most companies that split shares often announced other news at the same time of the announcement of the stock splits approvals. The top three news topics that were announced were dividend announcement, capital increase announcement, and warrant issuance announcement.

The results, classified by price level, showed that the companies that announced other news at the same time of the announcement of the stock split approvals were mostly companies that had high stock prices and P/E ratios that were greater than the benchmark P/Es.

However, there were some companies that had low stock prices and P/E ratios lower than benchmark P/Es that announced other news at the same time of the announcement of the stock splits approvals. This may be due to the listed company's motivation to create demand by issuing good news and to encourage investors to buy its shares; thus, investors should consider the fundamental analysis prior to make investment decisions.

Change in Share Price

Theoretically, the purposes of stock splits were to increase liquidity by increasing of number of issued and outstanding shares and decreasing the par value. Therefore, stock splits had no effect on a company, shareholders, and investors, since market capitalization, shareholders' equity in the financial statements, and intrinsic value will be the same as before stock splits.

However, the results showed that most companies had a higher share price as of the effective date of stock splits when compared to the date of the stock splits approval by the board of directors. The reason may be due to investors' view of stock splits as a good signal. Therefore, investors buy shares for short-term speculative investment. As a result, stock prices increase due to the increasing demand. The results are presented in Table 3.

Table 3.

The Change in Share Price during the Effective Date of Stock Splits Compared to the Date of Stock Splits Approval by the Board of Directors

The Change in Share Price	Number of Listed Companies that Split Shares (Percentage)		
	SET Companies	MAI Companies	Total Companies
Stock prices increase	134 (56.1%)	19 (67.9%)	153 (57.3%)
Stock prices decrease	99 (41.4%)	9 (32.1%)	108 (40.4%)
Stock prices remain unchanged	6 (2.5%)	0 (0.0%)	6 (2.2%)
Total	239 (100.0%)	28 (100.0%)	267 (100.0%)

Notes: Data from 301 companies from which split shares were obtained. The data used in Table 3 came from 267 companies (88.70% of 301 companies). The dataset was reduced by 34 companies because of the incomplete data.

Furthermore, there were some companies for which split shares had a lower share price as of the effective date of stock splits when compared to the date of stock splits approval by the board of directors. This may be due to other events beyond the companies' control, such as economic and stock market conditions.

Case Studies of Stock Splits

Within the 16-year period examined, this survey found that there were some listed companies that inappropriately split shares and took action at inappropriate times. For example, the board of directors of one listed company had the majority vote for doing second-time stock splits after the first stock splits only four months. As another example, the board of directors of a listed company approved stock splits after the company had been listed in SET for only a month.

Moreover, the shares in these instances had three characteristics: (1) low par value, (2) lower closing share price when compared to the market price of others in the stock market and (3) a fairly high number of issued and outstanding shares. As a result, the SET has issued a letter asking the company to clarify the reason and necessity of stock splits. Finally, these listed companies cancelled their stock splits.

As a consequence of the inappropriately split shares among listed companies, which may cause its shareholders and investors to misunderstand the purpose of stock splits, in 2016, the SET announced the regulation of the minimum par value, under which listed compa-

nies must have par values of no less than Baht 0.50 per share. This enabled the SET to monitor listed companies in the use of the appropriate stock splits mechanism and to simplify the understanding of investors (The Stock Exchange of Thailand, 2016).

Types of Companies with Reverse Stock Splits

From 2001 to 2016, the results indicated that reverse stock splits were not popular for Thai-listed companies. Only nine companies listed in the SET engaged in reverse stock splits. The results classified by index showed that 100% of the listed companies that engaged in reverse stock splits were listed companies in the non-SET100 index (small-sized stocks).

For the nine listed companies in the SET, the top industries were property and construction, industrials, and financials, which accounted for 37.50%, 20.83%, and 16.67% of the total amount of companies in SET, respectively.

Reverse Stock Splits Ratios

The top two reverse stock splits ratios were 0.01 for a 10 stock split (22.22% of total reverse stock splits) and 0.01 for 1 stock split (22.22% of total reverse stock splits).

The Effects of Other News Announcements with Announcement of Reverse Stock Splits Approvals

This survey found that most companies that engaged in reverse split shares often announced other news at the same time of the announcement of the reverse stock splits approvals. The top three news topics that were announced were capital increase, capital decrease, and suspension of dividend payment.

Reasons for Performing Reverse Stock Splits

The results of a reverse stock splits survey indicated that only five listed companies identified the reason for reverse stock splits as a mode of restructuring as part of their rehabilitation plans. All five listed companies had poor financial performance; some companies had a deficit in retained earnings, negative shareholders' equity in the financial statements, and defaulted payments. Furthermore, two out of five listed companies were delisted from SET. As a result, the five listed companies filed for business rehabilitation with the Central Bankruptcy Court. Therefore, the reverse stock splits at that time were considered appropriate for the restructuring of the company's shareholders.

CONCLUSION

This study surveyed the change in par value in the case of both stock splits and reverse stock splits of the listed companies in the SET and MAI from 2001 to 2016. This study found that listed companies (310 companies; 278 SET and 32 MAI) demonstrated three types of changes in par value: (1) stock splits (92.58% of 310 listed companies), (2) reverse stock splits (2.58% of 310 listed companies), and (3) a combination of stock splits and reverse stock splits (4.84% of 310 listed companies)

For the 16-year period from 2001-2016, the common characteristics of listed companies that split shares were small-sized companies (being listed companies in the Non-SET100 index and MAI) and low price (having P/E ratio lower than benchmark P/Es), which were not in line with the SET guidelines. The results of the stock splits survey highlighted that most of the Thai-listed companies inappropriately carried out stock splits.

Furthermore, most listed companies that split shares often announced other news at the same time of the announcement of the stock splits approvals. This may be due to the fact that good news creates more demand for investors to buy stocks.

The results provide some guidelines for investors on how to make efficient investment decisions in listed companies that split shares by considering the fundamental analysis before buying the split shares.

This survey also found that reverse stock splits were not popular for listed companies in Thailand. Some listed companies identified the reason for their reverse stock splits as being part of their rehabilitation plans.

RECOMMENDATIONS

SET should provide guidelines for performing stock splits and reverse stock splits in the case of listed companies' aim to make changes in par value more than once. These results were found by considering the range of time since the last action regarding making a change in par value, in line with the SET's guidelines and taking action at the right moment.

SEC should define appropriate and clear criteria for stock split to avoid inappropriately split shares of listed companies and protect the shareholders and investors from misunderstand the purpose of stock splits.

The listed companies in Thailand should study reverse stock splits as an alternative financial instrument, which is useful in the restructuring of the company's shareholders. It can thus help create stability of stock prices.

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**REGIONAL CONTEXT AWARENESS IN
PERFORMANCE AUDIT DEVELOPMENT**

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ABSTRACT

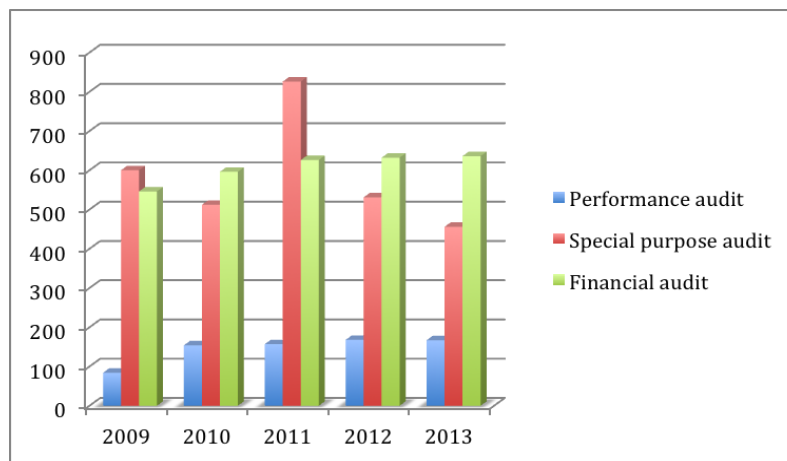
Despite the complexity of its implementation, the ideal type approach was commonly used. Badan Pemeriksa Keuangan (BPK) as Supreme audit institution (SAI) in Indonesia developing performance audit by learning ideal types from other SAIs such as from United States or Australia. This paper discussed the opportunity of performance audit development in Indonesia by learning from the regional context in ASEAN. Performance auditing practices were developing by the SAIs to help the government provide performance accountability to the stakeholders. This paper showed that BPK learned from other members of ASEAN Organization of Supreme Audit Institutions (ASEANSAI) members in the development of performance audit. This paper described the contextual awareness of audit by using water management audit as a case study. It concluded that lessons learned from similar context countries are easier to implement than an ideal type because the context was considered applicable.

KEY WORDS: Performance audit, regional context, awareness, ASEANSAI

INTRODUCTION

Reformation of state financial policy in Indonesia has been running since 1998 and empowering Badan Pemeriksa Keuangan (BPK) to conduct an audit that more beneficial to the citizens. BPK as the Supreme Audit Institution (SAI) in Indonesia continued to develop its performance audit to increase the benefit of audit. The factual evidence of developments is the quantity improvement of performance audit reports. The comparison of the type and quantities of BPK's audit for the period 2009 - 2013 is displayed as figure 1.

Figure 1. The Type of Audit Conducted by BPK during 2009-2013



Source. Adapted from BPK, 2014.

The figure 1 shows that the number of performance audits in the BPK continued to escalate although the number is still below the financial audit and special purpose audit. Strategic planning that is prepared to focus on improvement of performance audit initiated by Rizal Djalil as BPK's chairman 2014-2015. However, the increase in terms of quantity alone is not enough. BPK's Chairman 2015-2017, Harry Azhar Aziz, confirms that the performance audit should be carried out selectively on government programs that increase citizen's welfare. The implementations of performance audits are similar with the implementation of public administration that mixed with many values that are management, politics, and law. Performance audit can be categorized into (1) closed-loop audit that only promote the compliance of formal standards and (2) open-loop audit with insight from an external party. The problem of performance audit implementation arises in the context of a democratic system where the mindset of the audit opens with many citizen participations.

The need for impacting performance audit is one of argumentation that makes BPK searching the way to improve the quality of performance audits. One alternative is learning from similar SAI that have similar environmental context. BPK joined the International Organization of Supreme Audit Institutions (INTOSAI) in 1968 then joined the Asian Organization of Supreme Audit Institutions (ASOSAI) in 1979. In 2011, BPK initiated to establish the ASEAN Supreme Audit Institutions (ASEANSAI) with the other seven countries. Different with variation of SAIs in INTOSAI and ASOSAI, ASEANSAI member tend similarity in the context of a developing country and has a democratic

system. It makes BPK to acquire the knowledge from other ASEANSI countries of their performance audit, vice versa.

OBJECTIVE OF THE STUDY

This paper discusses the contribution of ASEANSI for BPK in the implementation of the performance audit. Contributions will be viewed from mutualism forum of ASEANSI which BPK take part. This paper takes the example on ASEANSI forum of performance audit of water management.

LITERATURE REVIEW

Contextual awareness discussed in this paper is applied as one aspect of the development of a performance audit when SAI try to gain knowledge from other SAIs. Performance audit is developed to be more responsive to the stakeholders. It has objectives to improve accountability (Rai, 2011 and Djalil, 2014), to develop the accountability report (Rai, 2011), to improve performance indicators (Rai, 2011), to compare performance between organizations and to disclose the information (Rai, 2011). Performance audit has a purpose to fulfill the needs of stakeholders such as parliaments (Djalil, 2014) and improve the quality of state financial management (Djalil, 2014). According to the World Bank (2005), most of the SAI were initially established to conduct a financial audit or compliance audit. Transformation of SAIs changes the scope of the audit to be extensive including performance evaluation or performance audit.

Performance auditor needs to aware of the process of continuous learning in the business processes of the auditee and its environment to provide good recommendations (Rai, 2011). Lonsdale & Bechberger (2011) in Lonsdale et al. (2011) stated that the uses of good practices are increased. It can be formed of procedural advice or a short description of the specific case studies has been found during evidence analysis. It can be obtained from communication with wide community such as expert, academician, and other SAIs.

The important factor in the development of a performance audit is aware of the context of each country such as laws, procedures, economic environment, traditions and culture (Yetano, 2005). Painter & Peters (2010) added tradition as a basis for understanding the contemporary complex administrative system. Awareness of regional context by comparison with other countries in the same area or region that considered similar is an alternative to use good enough governance (GEG) as an intervention model. Grindle (2004) mentions that a GEG means accepting differences in understanding of the evolution of institutions and governments, becoming more open to choices and priorities, learning about what they do rather than focusing excessively on governance gaps.

One of analysis of contextual awareness is by the similarity of the region. Countries in a similar region can be sharing their knowledge to build the traditions of public administration that can be taken as advantage for BPK. BPK can acquire knowledge from them to assist BPK design intervention by GEG perspective.

DISCUSSIONS

This study uses literature review and secondary document analysis from the experience report of ASEANSAI member countries. Analysis is conducted to obtain the extent to which the same regional context can be useful for ASEANSAI member countries to develop their performance audits. The use of regional contexts was carried out using an intervention context approach developed by Grindle (2004).

Transformation of SAI's Focus from Compliance Audit to Performance Audit

When BPK established 1947, BPK did not recognize the terminology of performance audit. Transformation from the audit of compliance become the audit of economically, efficient, and effective (3E) is not easy. According to I.G.A. Rai (personal communication, October 28, 2015), GAO has influence on the development of performance audit in Indonesia. In 1976, the GAO introduced the terminology of management audit about how it conducted in the agricultural sector. GAO supports BPK through activities such as training, internship, and scholarship in management audit. Reform in 1998 changes BPK in many ways. Differences of audit of BPK before and after the reform are disclosed at the table 1.

Table 1.

Comparing Transformation of SAI's Audit

No.	Description	Before the Reform	After the Reform
1	Type of audit	Financial related audit and compliance audit.	Financial audit, performance audit, and special purpose audit.
2	Indicator of audit quality	The quantity of the audit findings.	Improvements of compliance, governance or performance.
3	Emphasis on audit	Budget and compliance.	Output management and outcomes for the citizen.
4	Audit Standard	Less demanding.	Mandatory.

Source. Adapted from Rai, 2015.

From table 1 known that the indicator of audit quality before reform is the quantity of the audit findings. Present indicator of audit quality of BPK is successful recommendation to be carried out and improve the performance. BPK in the past has an emphasis on inputs and processes. As implication, performance audit of BPK in the past has more emphasis on the compliance of the budget while in the present has more emphasis on the outputs and the outcomes.

Andrianto (2014) says that BPK developing the methodology of performance audit during 2004-2014 by studied from Australia National Audit Office (ANAO). ANAO also placed an expert at the BPK headquarter office. SAI from other countries support BPK's understanding and implementation of the international standards. BPK is a member in various SAI associations such as ASEANSAI, ASOSAI, and INTOSAI. The difference contexts between Indonesia and Australia or US gave limitations of lesson learnt. As an alternative

to gain more benefit, Indonesia could obtain from the country with similar context means in the same geographical region and comparable condition in competitiveness with Indonesia such as ASEANSAT.

Learning from ASEANSAT: The Argumentation

The evaluation of governance context is concluding that intervention on the performance audit development is needed. According to the typology characteristic from Grindle (2011) that adapted from Moore (2001), BPK can be categorized as institutionalized and half competitive. The argumentations are:

1. The legal basis of the BPK relatively stables because of legitimacy from the Constitution. External auditor regime is pointing BPK as the main actors and did not have a competitor for it.
2. BPK's regulation relatively clearly translated. The performance audit in Indonesia has clear regulations in Act No.15/2004, BPK's regulation, and BPK's standards and procedures.
3. BPK has a high legitimacy in decision-making because of the constitutional mandate that stated the independency of BPK. BPK has a broad scope of their audit themes that in line with the middle term government's development plan.
4. Capacity of BPK is moderate. Based on the peer-review report by SAI of Poland known that BPK had the professional capacity, the organizational capacity, and the capacity to deal with the external environment (NIK, 2015). Nevertheless, the procedure and the relationship with stakeholders need to be improved.

The contextual awareness in developing performance audit is applicable by considering ASEANSAT countries, which are democratic, same geopolitics and social aspects with Indonesia. In 2011, BPK established ASEANSAT with SAI of Brunei, Cambodia, Lao, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam. One of the activities of ASEANSAT is ASEAN Knowledge Sharing Committee (KSC) that facilitates knowledge-sharing programs among the ASEANSAT member countries.

Audit of Water Management in Southeast Asia: The Example

The Office of Auditor General of Thailand (OAG, 2015) published a report stating the mutualism sharing related to the experience of ASEANSAT members on audit of water management. Mutualism sharing as follows:

Indonesia's Experience: Sharing the Domestic Knowledge

BPK has shared the audit perspective of flood disaster management in the Bengawan Solo River basin. The purpose of the audit is to assess the effectiveness of the implementation of flood disaster management system in the Bengawan Solo River basin in the province of Central Java and East Java. The audit indicates that flood in the Bengawan Solo River basin was not only caused by persistent heavy rains, but also due to the degradation of watershed, lack of flood control structures, incomplete river improvement projects, and lack

of integrated flood prevention system. BPK has shared that audit of flood disaster management involves many government agencies to be examined. It needs an audit team who has knowledge of various disciplines. The use of global positioning system (GPS) and geographical information system (GIS) in the audit process will provide adequate evidence of an overview of critical land. The use of experts in auditing process may strengthen the analysis of the risk and impact of floods. Other ASEANSAIs members can adopt these experiences to conduct a similar audit.

Obtain the Knowledge from Other Countries

In the ASEANSAI forum of knowledge sharing there are SAIs that shared their experience. The important issue of the performance audit of water management comes from two SAIs, SAI of Thailand and SAI of Malaysia (OAG, 2015).

1. SAI of Thailand explained that during 2005-2015 SAI Thailand published 33 performance audit reports, which involved audit of water management. SAI of Thailand classified their audit reports into four categories, which are the availability of drinking water, planning and financing for water infrastructure, flood prevention, and waste water management. SAI of Thailand has shared topic about audit of flood mitigation. Since flood disaster in 2011, it focused on the audit of public procurement of flood prevention projects after flood disaster in 2011. SAI of Thailand also discussed how to implement the audit of disaster risk reduction. Mitigation or prevention of flood is involved in the disaster management by governments. It can be used by SAIs, governments and communities that seeking to improve mechanisms, procedures and institutions to reduce the risk populations and assets exposure as the consequences of disasters. SAI of Thailand reminds that the International Standards of Supreme Audit Institutions (ISSAI) 5510 of the audit of disaster risk reduction provides guidance and good practice on audit of disaster risk reduction.
2. SAI of Malaysia explained their institutional transformation by initiating the water management division in 2007. The scope of water management categorized into water supply, flood mitigation, wastewater, water resources, and shore protection. The establishment of water management division could provide technical advice, suggestion and recommendation to relevant government agencies on water management as the best practices. During 2003-2014, SAI of Malaysia has conducted more than 20 performance audits on flood mitigation. Common audit findings are lack of implementation, weaknesses in contract management, the lack of specification, poor human resource, lack of maintenance, lack of coordination between government agencies, lack of safety, and lack of implementation of Environmental Monitoring Plan (EMP). SAI of Malaysia required the auditors to have technical skill and competencies in flood management and ready to collaborate with other agencies that are equipped with advance tools.

Table 2.

Lesson Learnt from ASEANSI Forum

No.	SAI	GCI Rank	Most Problematic Factor in Doing Business	Lesson Learnt
1.	Indonesia	41	Corruption, inefficient bureaucracy, inadequate supply of infrastructures.	SAI in ASEANSI might employ environmental economists in order to evaluate the impact of flood disaster. In addition, SAI in ASEANSI could apply the environmental evaluation for environmental auditing area.
2.	Thailand	34	Government instability, inefficient bureaucracy, corruption.	SAI in ASEANSI might focus on the audit of public procurement as a risk area in water management.
3.	Malaysia	25	Access to financing, corruption, inefficient bureaucracy.	SAI in ASEANSI must have competent human resources in flood management, such as have an engineer as a specialist in an audit of water management.

Source. Adapted from WEF, 2016 and OAG, 2015.

ASEANSAI forum is an alternative way for BPK to learn from other SAIs that have similar context. From the Table 2, known that the similar context can be viewed in terms of the same problematic sector, geopolitics and Global Competitiveness Index (GCI). Lesson from other SAIs in ASEANSAI can be applied because of the same problem context in their country.

CONCLUSIONS

The experience of another ASEANSAI members that has similarity with BPK provides benefit for the development of a performance audit in BPK. SAI of Malaysia has shared their knowledge about the importance of institutional transformation and the competencies of human resources to support the performance audit. SAI of Thailand has shared their knowledge about the importance of procurement audit as a preliminary audit before conduct performance audit of water management. Both SAIs gave relevant issue and solution to develop the performance audit of flood mitigation as a leading issue in Indonesia. The contextual awareness of similarity of region and situation in ASEANSAI members provides benefit to BPK. Experience of performance audit of water management from neighboring and similar countries is feasible to be learned because its applicability. In hypothetical thinking, awareness to learn from the same context would be useful because its implementation tends to be easier and applicable.

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