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# The determinants of career growth: The case study of Spa businesses

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## Abstract

Career growth is the one of the long-term goals of all employees. Spa business in Thailand has been expanded rapidly in the past decades as health trends have led to more popularity in spa services. The current research aims to examine the relationship among employee performance and job satisfaction on the career growth in the spa industry in Thailand. The data were collected from the employees of spa companies, by using self-administered questionnaires. The results demonstrated job satisfaction has higher influence on career growth than employee performance. The study has implications for practitioners to support the career growth for their employees. In addition, academic contributions were also discussed for the future research development.

**Keywords:** Career Growth, Employee Performance and Job Satisfaction

## Introduction

With the significance and growth of tourism industry, hospitality companies strived and searched for opportunities to provide high quality services to attract the tourists to become their customers and continue to use the service in the future. It has been obvious that health-related service has become one of the most attractive elements in tourism, such as wellness and medical tourism. Health-related tourism is including of those activities that would give mental and physical beneficial for health or rejuvenation, such as spa, yoga, physical treatments and meditation (Okech, 2014). Spa industry is one of the most important hospitality industries in Thailand and Thai spa treatment is one of the main activities for tourists to experience the uniqueness of Thailand. The core of spa business and its success depends on the performance and quality of spa employees.

In the competitive business environment, employees are essential to create competitive advantage. To retain the employees to support the growth of the companies, the companies must support the employees to ensure their own career

growth and career path clearly (Okurame, 2014). Chang (2016) noted that employees are the foundation of hospitality industry, including spa businesses. Despite its fast growing trend in spa services worldwide, few studies investigated in this industry to find out with its unique characteristics in order to find the appropriate guidelines for the benefit of the spa industry. To fill in the gap in employee research in the spa industry, this current study focuses on the relationship among three main factors, including career growth, job satisfaction and employee performance.

### Background of Spa Industry

Spa service has been known for human societies since ancient times (D'Angelo, 2009). In most countries around the world, spa is recognized as an important service for relaxation and rejuvenation for body and mind. For the definition of spa, International Spa Association (2012) defines "spa as places devoted to overall well-being through a variety of professional services that encourage the renewal of mind, body and spirit.

**Table 1** Major Categories of Spa

Category	Definitions
Club spa	a place where the main service is fitness and supplementary types of spa with the services completed in one day.
Day spa	a facility providing variety of spa services within one day.
Destination spa	a place to help its customers improve the good habits to take care of their health. It includes short-term and long-term programs including different types of activities, such as spa service, healthy food program, fitness program, health and wellness educational program and other tailor-made program to fit the need of the customers.
Medical spa	a place offering spa services with licensed and professional medical personnel with the main objective to provide the combination of medical, wellness and spa services.

Mineral springs spa	a destination giving hydrotherapy treatments together with natural mineral or seawater normally provided the service on the sites of natural resources.
Resort and hotel spa	a spa in a hotel or resort offering professional spa services, usually including wellness and fitness programs.

*Source: International Spa Association (2012)*

Citrinot (2012) reported that spa tourism is known as one of the important strengths in Thailand's tourism industry. Thai governments and private firms initiated the effort to promote Thailand as the spa capital of Asia. Many internationally well-known spa destinations, including Chiva-Som, Deravan Spa and Six Senses Spa, crucially help the country build the strong reputation in spa services globally, with around 1.4 million international visitors visiting the country for medical or spa services per year. The expected revenue from spa and wellness services from the year 2010-2014 were estimated around US\$2.23 billion and the sales of spa related products around US\$1.3 billion. Moreover, additional strength of Thai spa is the reasonable price, comparing to all its competitors globally. In the year 2012, there were more than 1,200 spas in Thailand with approximately 400 luxury spas and the number was expected to increase in the future.

Spa service or treatment in Thailand started around 1994, spa treatment was provided for guests mainly in the top hotels in Thailand (Thaiways, 2012) and became popular among international visitors very quickly. Since then the greater number of spa service provided has been increasing significantly in most of the foreign tourist destinations, including Samui, Chiang Mai, Phuket and Bangkok. Together with the increasing number of the spa service providers, types and techniques of spa treatment had been introduced to the market simultaneously

and rapidly, including hydrotherapy and aromatherapy. The popularity of spa treatment occurs among Thai people as well due to the changing lifestyles and intense working environments. Several spa businesses offered packages for the customers for the long-term relationship. According to Thaiways (2012), there are many factors supporting Thailand to lead in Spa business at the global level. Thai hospitality with gentle and caring attention was among the main factors. Other factors were relaxing Thai traditional atmosphere and expertise of the therapists. The roles of Thai government were also crucial to promote the Thai spa to the global travelers. Referred to in Thaiways (2012), the well-accepted quality of Thai spa was shown in the results from the Spa Industry Surveys & Spa Consumer Surveys. For potential spa-holiday destinations, Thailand ranked number 1 (22%), followed by Indonesia (19%), Malaysia (13%) and Australia (7%). Another category was for destinations for the next spa treatment, the respondents identified that 42% considered Thailand, and the other major destinations were 30% for Indonesia, Maldives (5%) and Malaysia (5%). Additional insight was about their favorite spa treatment and the findings provided that 54% for massage treatment, 14% for body scrub, 10% for body wrap, 4% for facial treatment and the rest was for other types of the spa treatment.

The employees in the spa industry are the driving force for the growth and development of the industry. The spa

employees are important to the spa businesses because these employees interact directly with the customers and represent the quality of the spa service to the customers. To support the development of spa industry, the quality and performance of the employees have to be studied. Furthermore, career growth is one of the most important long term goals for the employees. In this study, career growth was studied as the dependent variable to be affected by job satisfaction and employee performance. In this area of study, little research studies had been conducted to help understanding the employee performance (Netemeyer and Maxham III, 2007) and their level of job satisfaction as well as career growth for the long-term relationship between the organization and the employees.

## Literature Review

### Career Growth

One of the goals of all employees is to continue to grow on the career path to improve both financial remuneration and job challenges. In the labor-intensive environment of hospitality industry, the competition among employees to be promoted to the higher position is intense. Employees may also encounter different stages of growth in their career from entry levels or managerial levels (McKercher et al., 1995). Career growth can be categorized into four dimensions, including career goal progress, professional ability development, promotion speed and remuneration growth (Weng et al., 2010).

For its definition, career growth was considered the process of growing in a person's career. In addition, career growth is measured in the aspects of a part of the work from the efforts of the employees to progress in their career goals. The growth

in the employee career also included acquisition of new skills valued by the organizations and the employees are rewarded with promotions and the increase in their pays or bonuses (Weng et al., 2010). Organizational supports are crucial to ensure the career growth opportunities, improving employee skills and greater contributions to the organizations (Aryee and Chen, 2004). Thus, to encourage employees to strive for their best and increase their likelihood for promotion, many organizations provide training, mentoring, education and promoted the deserved employees. Several empirical studies have shown that the positive career growth of the employees can increase the job effectiveness, job attendance, loyalty, involvement and willingness to adapt to the changes within the organization (Okurame, 2014). In addition, career growth signals positive job security for the employees. The career growth policy of an organization also plays a crucial role for influencing the perspective of the employees for the prospect of their career growth and their career related behavior. If the employees have favorable perception that the career development policy can fulfill their expectations, the employees become more dedicated to work and deliver higher work quality (Okurame, 2012). For this reason, when employees have good career growth, the employees build mutual trust and positive social exchange relationships with the organizations. In order to attract and retain employees, the needs of the employees should be realized by the service organizations to provide the opportunities for career progression and growth (Bharwani & Butt, 2012). Moreover, career growth demonstrates the relationship between the organization and its people. The positive relationship refers to the positive perceptions of employees towards

their career growth probability in a particular organization, and the relationship between career growth and job satisfaction can be found (McElroy & Wang, 2016). In addition, an individual's life factors, such as personal and family's needs, are essential to ensure the career development in this modern society. These factors are considered circumstances that change over the life cycle of an individual, which affects the career path decision of one. Therefore, the organization must deal with the career development trend through the "whole-life" perspective approach (Litano & Major, 2016).

### **Job Satisfaction**

The concept of job satisfaction has been in the center of organizational behavior topics. One of the early works in this field (Locke, 1969) provided the definition of job satisfaction in that it was defined and measured in terms of how employees like their jobs. Job satisfaction can be detailed as the feelings, attitudes or preferences of the employees towards works or their jobs. Historically the model for job satisfaction emphasizes all aspects of the employees' feeling toward their jobs (Lu et al., 2012). In addition, the expectation of the employees on the jobs highly affects their job satisfaction. An empirical research by Zaidi & Iqbal (2012) demonstrated that career selection is an important factor that increases the level of job satisfaction. Selecting the right career matching with the motivational factors of an individual for a specific job can enhance the motivation to work, resulted in higher level of job satisfaction. Another aspect for explaining the job satisfaction is known as the global and facet approach. The global approach focuses on the sum of all attitudes of the employees' concerns about their jobs and facet approach is to highlight the aspects of the jobs generating job satisfaction. To

understand job satisfaction, external factors or working environment, such as work structures in the organization, can also affect job satisfaction (Mulinge and Mueller, 1998). Job satisfaction can be categorized into four levels of job satisfactions, which are career self-related (individual's value and expectations towards that particular career), career content related (matching skills and personalities of the particular job), organizational/industry related (opportunities for growth, job stability and job security within an organization), and job related (work environment, corporate culture, salary and management of an organization) (Zaidi & Iqbal, 2012).

In the aspect of service industry, studies of hotel firms demonstrate that the service quality and performance of frontline employees, showing that satisfied employees lead to high quality service delivery and satisfied customers (Yeh, 2013). The dimensions of hospitality job including of the irregular work schedule, regular work shift and time for rest, affecting the level job satisfactions (Zhao, Ghiselli, Law & Ma, 2016).

For measuring job satisfaction, Spector (1997) demonstrated that job satisfaction dimensions can be measured from the followings; appreciation, communication, co-workers, fringe benefits, job conditions, nature of the work itself, the nature of the organization itself, an organization's policies and procedures, pay, personal growth, promotion opportunities, recognition, security and supervision. All these dimensions can be applied to help measure the job satisfaction. Many scholars have investigated that there is a positive relationship between the career growth and the level of job satisfactions (Zopiatis, Constanti & Theocharous, 2014; Lu, Lu, Gursoy, & Neale, 2016).

## Employee Performance

Employee performance is known to be crucial for the organization in many ways. In general, the employee performance is the indicator for organization's success. It refers to the financial and non-financial results from the action of employees, having a direct effect on company's performance and success (Anitha, 2014). For service industry, employee performance directly affects the perception of service quality of the service firms (Bitner, 1990). The implication is that improving employee performance can enhance the level of service quality perceived by customers (Hartline and Jones, 1996). Thus, to deliver positive performance to the customers for the service industry, attitudes and behaviors of the service employees are the key determinants. In the aspect of health-related service, effective employee performance is when the best possible service delivers to the customers through the effort and focus of employee's energy, meeting the requirements and pre-determined goals of each individual customer (Sharma & Dhar, 2016). For categories of employee performance, there are two classifications, including core task and socio-emotional dimensions. Firstly, employee performance can be evaluated from product knowledge, facilitating to satisfy customer needs, supporting customers to attain their service goals. The second dimension is about socio-emotional one. In this aspect, the performance of the employees can be evaluated from interpersonal skills, the degree of friendliness, attentiveness, and having sympathy for customers (van Dolen et al., 2002).

Furthermore, the career growth is influenced through effective training when the employees can improve their performance (Dhar, 2015). For the hospitality sector, service quality training helps increase the level of performance of employees. At the same time it raised the awareness of company's commitment to induce the employee's competency and develop career growth opportunity.

## Research Methodology

The sample was the employees from staff to senior management levels from spa service providers in Bangkok, Thailand. As a capital of Thailand, Bangkok is one of the most competitive and wide-spread types of spa service providers, representing the suitable location for the study. The questionnaires were distributed to all types of spa services, including club spa, day spa and resort and hotel spa. The usable sample was 350. For data analysis, in order to assess the relationship of all the constructs, structural equation modeling was chosen as the most appropriate technique for hypothesis testing.

## Results

The questionnaires were distributed to spa companies located in Bangkok, Thailand. 350 usable questionnaires with no missing values were used for the next step in data analysis. The results included demographic characteristics, validity tests, and model testing with fit indices.



**Table 2** Demographic Characteristics

Classification	Variable	N	%
Gender	Female	180	51.43
	Male	170	48.57
Education	High school or below	120	34.29
	Bachelor's degree	180	51.43
	Master's degree/ Ph.D.	50	14.28
Age (year)	25 or younger	120	34.29
	26–30	90	25.71
	31–45	80	22.86
	Older than 45	60	17.14
Position held	Senior management	40	11.43
	Middle management	100	28.57
	Staff	210	60.00

Female employees represented slightly more than half of the respondents. Most of the respondents had Bachelor's degrees, accounted for 51.43% or 180 out of 350 samples. The majority of the samples aged 25 years old or younger, which was 34.29%. There were three levels of position investigated and 60% were staff, 28.57% were middle management and the rest were senior management level.

### Tests of Validity

To ensure that the data from the samples meet the required assumptions of structural

equation modeling technique, reliability and validity tests were conducted. Convergent validity and discriminant validity were assessed prior to further model testing as shown in Table 4. The results indicated that convergent validity has achieved because all the AVE values were greater than 0.5 (Fornell and Larcker, 1981) for all the constructs. For discriminant validity, all AVE values of two constructs were higher than their squared correlation (Fornell and Larcker, 1981). In addition, Cronbach's alpha of all constructs exceeded the acceptable level of 0.8.

**Table 3** Factor Items

Measurement or factor items of all three constructs were shown in Table 3. These items were developed based on the past studies discussed in the literature review. The reliability test of the factors was reported in Table 4, by Cronbach's alpha.

Factors/Constructs	Items
Career Growth (CG)	I can grow my responsibility in this company. I have improved my knowledge and skills to better do my work. My remuneration has been appropriate increased. I can see my career path clearly in this company.
Employee Performance (EP)	I have received positive evaluation about my performance. I can perform my work at the expected quality. I can perform my work at the expected time. I can perform my work to meet with the expectation of the organization. I have good knowledge about the product and service to satisfy the needs of customers. I am always ready to perform my work.
Job Satisfaction (JS)	I enjoy my working environment. I have good colleagues. I am proud to perform my job for this organization. My skills match with the demand of my job. The policy of the company supports me to do my job. I have the right personality to do my job. I am satisfied with the scope of my job.

**Table 4** Constructs, Correlation Coefficients and Measure Validation

Factor	Number of Items	CG	EP	JS	Cronbach's alpha	AVE
CG	4	1.00			.854	.765
EP	6	.601	1.00		.89	.759
JS	7	.625	.711	1.00	.922	.795

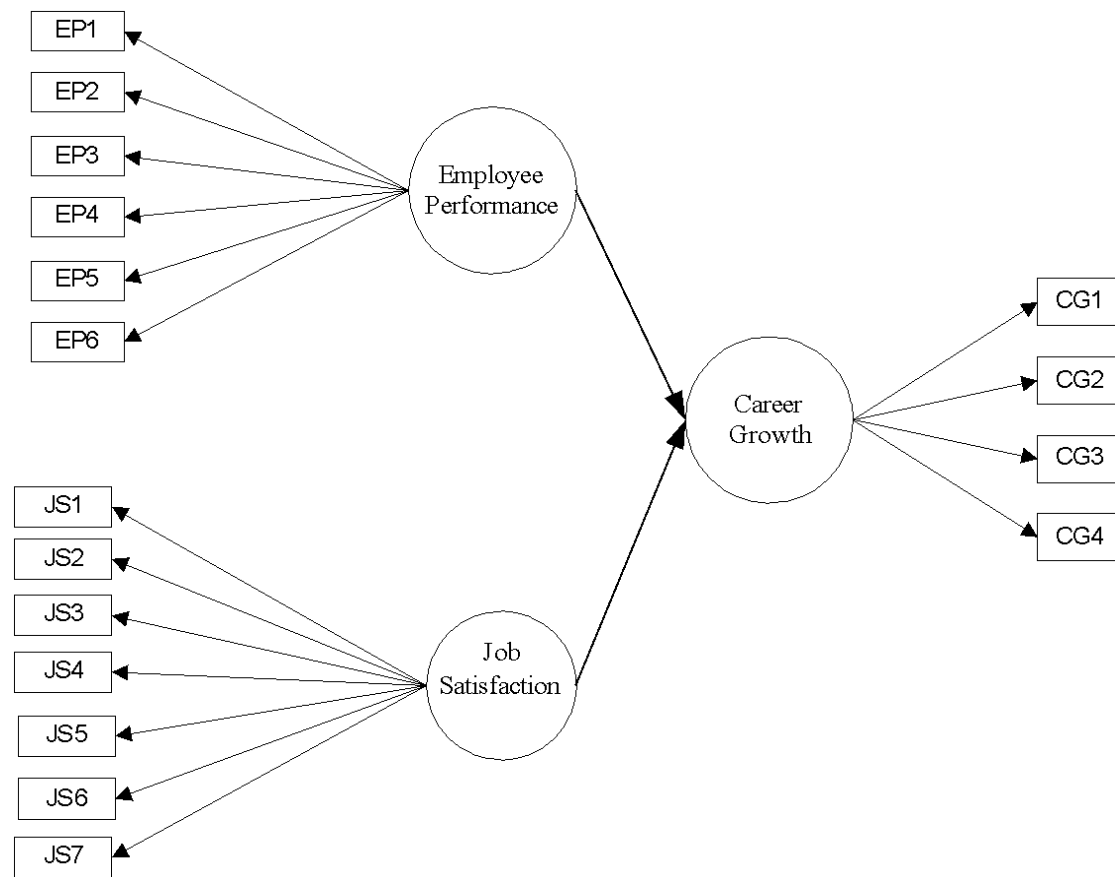
Notes: CG= Career Growth; EP= Employee Performance; JS= Job Satisfaction

## Research Hypotheses

In this exploratory study in the context of spa companies, the author focused on three major factors and there were two research hypotheses proposed in this study as follows;

H1: Employee performance is positively related to career growth.

H2: Job satisfaction is positively related to career growth.



**Figure 1** The Proposed Model

Structural equation modeling was applied to test the relationship among the constructs. The overall fit indices of the model were good: NFI = .968, NNFI= .976, CFI = .979, IFI =.979 and RMSEA =.073. In addition, the results from the test supported the two hypotheses.

**Table 5** The Relation of Parameters and Parameter Estimates of Proposed Model

The Relation of Parameters	Standardized Estimates
Job satisfaction→ Career growth	.488* (8.970)
Employee performance → Career growth	.464* (7.208)

\* indicated statistical significance at .05 and t-values are shown in parentheses.

From Table 5, both job satisfaction and employee performance had significant relationship with career growth. With the coefficients, Job satisfaction has greater positive influence on career growth than employee performance.

## Discussion

The findings pointed out that job satisfaction and employee performance had positive effects on career growth. The relationship between employee performance and career growth were recognized in past studies (Campion et al., 1994, Weng and McElroy, 2012). As employees perceive the chance of growth in the organization, they become motivated. Motivation can lead to increase the employee productivity and performance (Oduma & Were, 2014). Meanwhile, the better the performance the employee deliver would also resulted in promotion and reward, such as career development. Job satisfaction and career growth were also discussed in past research works (Orpen, 1979); (Orpen, 1998);(Barnett and Bradley, 2007). Prior studies showed the correlation between job satisfaction and career growth. For example, career growth is driven by the overall job satisfaction (Yang, Liu, Liu & Zhang, 2015). Job satisfaction affects how individual react and feel about their job, which with high job satisfaction, employees tend to look for ways to develop themselves (Rajesh, 2012; Sangaran & Jeetesh, 2015). In addition, job satisfaction indicated stronger influence on career growth, comparing to employee performance. This highlights the highly important impact of job satisfaction on career growth. Job satisfaction broadly demonstrated how employees like their jobs and with this empirical investigation, it provided the significant link between their satisfaction on their jobs and the growth in their profession. Another relationship was between employee performance and career growth. Good performance employees have high tendency to have positive career growths. However, the findings implied as well that positive emotional attitude towards their jobs or job satisfaction together with good performance can

support the employees to improve their career growth.

## Conclusion and Directions for further Studies

The present study has provided the detailed investigation of quantitative research of factors affecting career growth of the employees in hospitality industry. The author achieved the objectives by showing the significant relationships of the constructs. Moreover, practical implications from the study included that companies should provide the clear policy for their employees to understand the career growth opportunities so that the employees can feel that they have great job securities and potential long-term employment with the organizations (Aryee and Chen, 2004). Additionally, managers should focus on supporting the employees to improve their performance and should create the positive working environment leading to higher job satisfaction. It is interesting to find that job satisfaction has slightly higher effects on career growth than employee performance.

Further research studies can emphasize the long term relationship among these constructs and cross-industry studies (e.g. service and manufacturing industries) can also be conducted to enhance the knowledge about the constructs. In addition, career growth can present the opportunity for long-term study of the employees in the organization for the researchers to conduct longitudinal study on the topic. On another note, in the future qualitative approaches may be adopted to investigate the perceptions of employees in terms of the speed of their career growth will help the organizations to understand more about their process of promoting growth in the organizational context.

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# The model of corporate social responsibility, organizational commitment and employee green behavior

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## Abstract

This study has explored the role of Organizational Commitment as mediating factors between Corporate Social Responsibility (CSR) and Employee Green Behavior. The objectives of this study are to build and test the theoretical model to identify the mediating factors in the linkage between CSR and Employee Green Behavior. The proposed model is developed from theoretical model of literature. It consists of CSR, Organizational Commitment and Employee Green Behavior. Additionally, three hypotheses were developed to examine the model. Structural Equation Modeling (SEM) is employed to test the model using data from companies which are in the list of ESG-100, 2016. ESG is stand for Environment, Social and Government. These companies are ranked by CSR club of Thailand of the year 2016. Both exploratory and Confirmatory Factor Analysis (EFA and CFA) are performed followed by Structural Equation Modeling along with AMOS software to examine the models. The results generally support the hypothesized model with research and managerial implications. The mediation of Organizational Commitment play as a mediating role between CSR and Employee Green behavior. Major involvement to the literature, which help to explore the relationship of CSR, Organizational Commitment as well as employee green behavior. Besides the new model of CSR, Employee Green Behavior and Organizational Commitment has been developed. Therefore, the model would be beneficial for both scholars and practitioners for their further development.

**Keywords:** Corporate Social Responsibility (CSR), Employee Green Behavior, Organizational Commitment, Structural Equation Modeling (SEM).

## Introduction

Originally, the concept of corporate social responsibility (CSR) has been employed for strategic tool of business organization for many decade. CSR is widely used for international business strategy, particularly to gain competitive advantage for many organizations (Aguilera, Rupp, Williams, & Ganapathi, 2007; Ali, Rehman, Ali, Yousaf, & Zia, 2010, 2012; Santhosh and Baral, 2015; Esmaelinezhad, Singaravelloo, and Boerhannoeddin, 2015). CSR can be a source of opportunity, as well as making benefit in organizations (Porter & Kramer, 2006). Until now, the use of CSR still gains an interest for business responsibility. It helps the organizational executives understand the need of positive attitudes and behaviors among employees. It also motivates them to invest in CSR activities and thus tuning their employees' attitudes in promoting the work environment (Santhosh and Baral, 2015). The organizations have also realized the multidimensional benefits of CSR and have paid great attention to integrate it in all scopes of business strategies. Organizations are also using CSR to strengthen its relationships with different stakeholders including customers, investors, government, suppliers, and employees. These strengthened relationships ensure the organizations to minimize conflicts with stakeholders as well as to maximize loyalty from them. In respect of stakeholder approach, one of the most important stakeholders is employees, as they can be affected by organizational activities, and play a key role in the achievement or failure of their organization (Ali, Rehman, Ali, Yousaf, & Zia, 2010; Azim 2016).

Concerning to Cone Communication research display, ninety percent of the participants in the study are willing to work for the companies that care for their individual employees. Sixty percent of them are looking for the companies that encouraged for

environmental friendly operation or contributing to a moral basis. More importantly, **fifty one percent** won't work for a company that doesn't have strong social and environmental commitments and a solid CSR initiatives (adapted from cone communication, Whitney, 2016). Moreover, the past research confirmed that social performance and CSR reputation of the companies will draw the interest from potential future employments. CSR can also increase the perceived honesty of an organization for a job seeker who is lacking any previous interaction with the organization (Turker, 2008; Bolton, Kim, & O'Gorman, 2011; Closon, Leys, & Hellemans, 2015). From this respect, understanding employees' views is vital, because they can significantly influence workplace attitudes, behaviors, and performance which are fundamentally linked to business success (Bolton, Kim, & O'Gorman, 2011; Glavas & Kelley, 2014).

Concerning to employee attitude and behavior, organizational commitment is one of the individual strength recognized in an organization. In the field of organization theory found that organizational commitment can be explained as the behavioral display for the interaction between an individual and a group. Organizational commitment also stays in key position, and it is also a very important index of the outcome of organization performance and increase productivity. (You, Huang, Wang, Liu Lin and Tseng, 2013; Closon, Leys, & Hellemans, 2015; Abu-Shamaa, Al-Rabayah, & Khasawneh, 2015).

Furthermore, organizational commitment can effectively predict the demission behavior of the employees whether they will leave or stay in the organization (You et al, 2013). Besides, previous study found there is a significant relationship between employee's perceptions on corporate social responsibility activities and organizational commitment. This condition occurs because employees can

fully describe the activity of ethical social responsibility and generate engagement to the organization. In other words, employee's perceptions on corporate social responsibility activities significantly influence organizational commitment. (Ali, Rehman, Ali, Yousaf, & Zia, 2010; Tilleman, 2012; Terano, 2016).

As mentioned earlier, numerous of organizations employed CSR to lift up the level of their employee's commitment to the companies, as they are the important stakeholders of the organization. (Freeman, 1984; Turker, 2009; Ali et al, 2015; Azim 2016). Nevertheless, some organizations treat the natural recourses as one of their external stakeholders as the organization that must take a priority concern in order to sustain their organization in a long run (Barter, 2011). The employees themselves also want to work with the companies that support the environment. Furthermore, environmental quality also strongly depends on human behavior patterns (Steg and Vlek, 2009). According to the data form Cone communication in 2015, it revealed that 82 percent of the job seekers want to work with the organizations which concern the environment (Cone communication 2105). Moreover, companies with strong environment sustainability and social responsibility programs have much higher employee engagement rates (greenbiz.com, 2014).

Subsequently, the importance of understanding human behavior towards the environment has led to the creation of specific areas of research, like environmental psychology.

Although the topics related to environmental sustainability and preservation are gaining importance across many different research areas, scholars in organizational behavior have produced very little regarding how to promote green behavior in organizations (Anderson, Jackson and & Russell, 2013; Araujo, 2014).

According to the organizational commitment and environment sustainability, if the employees comprehend and have to practice to environment sustainability, they tend to reduce the personal and organizational resource consumption (Lamm, Tosti-Kharas, & Williams, 2013).

Furthermore, people who engage in sustainability behaviors perform tasks such as taking action alongside, recycling household waste or demonstrating a willingness to accept climate change strategies (Lamm, Tosti-Kharas, & Williams, 2013). In some industry such as hotel and tourism, the green practices can contribute to communities and the environment. Moreover, these cause-related practices can increases customers' loyalty (Yoon, Jang & Lee, 2016). From this point, the environment sustainability may be great choice in gaining the competitive advantage to organizations in a long run. The significance of this study have both practical and theoretical problems. The definition of CSR is still difficult to confirm and lack of universal understanding (Aguilera, Rupp, Williams, & Ganapathi, 2007; Ali, Rehman, Ali, Yousaf, & Zia, 2010; Santhosh & Baral, 2015; Esmaeelinezhad, Singaravelloo, and Boerhannoeddin, 2015).

Additionally, the linkage between CSR and corporate strategy are often unclear (Porter & Kramer, 2006; Jamali, 2008; Bolton, Kim, & O'Gorman, 2011). The evidences of its applications are often under different names, traditions, and rationales, around the world (Carroll, 2016). Moreover, the linkage of CSR initiatives to other discipline such as organizational commitment is still little understanding (Rae, Sand, & Gadenne, 2015). Although the previously literature supports the idea that CSR influences employees, we still know little about how and why CSR directly influences on employees (Aguilera, Rupp, Williams, & Ganapathi, 2007; Aguinis, 2011; Lee, 2008; Pelozo, 2009). According to the content analysis of CSR, there are very

few articles focused on CSR as a mediator at the individual level (Aguinis & Glavas, 2012). Beside, there are many scholars who explore the scope of corporate social responsibility (CSR), mostly based on the perspective of the enterprise management or customers and still lack of the focusing on employee's point of view (Turker, 2008; Bolton, Kim, & O'Gorman, 2011; De Roeck & Delobbe, 2012; Ali et al 2012; You et al, 2013; Closon 2015; Prutina 2016). Besides, the past research is still shortage of the use of the organizational commitment as a mechanism to link with the CSR initiatives (Bhattacharya, Korschun, & Sen, 2009). The rationale for studying come from employee perceived organizational CSR to encourage the higher level of organizational commitment. Moreover, concept of organizational commitment and its antecedents and consequences have been discussed extensively by the theorists including Mowday, Steers, and Porter, 1979; Allen & Meyer, 1990. It is clear that the organizational commitment lead to higher organizational performance and influence environmental sustainability. Moreover, the past research has inadequately addressed the relationship between CSR and employee pro-environmental behavior. This insufficiency may also be recognized to the recently emerging green organizational behavior literature (Babiak & Trendafilova, 2011). Therefore, this study explain the missing link between CSR and employee green behavior as well as organizational commitment.

## Literature Review

In this section, a theoretical framework is built on the existing theoretical constructs. Then, a theoretical model is hypothesized using the existing conceptualized of literature related to CSR, Organizational Commitment and Employee green behavior of the organization.

### Corporate social responsibility (CSR)

The background of corporate social responsibility started in 1930 by Theodore Kreps, the term "social audit" was first introduced in relation to companies reporting their social responsibility (Carroll & Shabana, 1999).

Bowen (1953), the famous book called "Social responsibility for businessman", stated that CSR became obligations of businessmen to pursue decisions or to follow their lines of action in business decisions that values of society (Developments in the concept of corporate social responsibility, n.d). Milton Friedman, very prominent theorist (1962) announced "the capitalism and freedom" approach which focuses on social security as a particularly large and unfair system. A corporate executive has a direct responsibility to conduct business in accordance with shareholders desire to make as much money as possible while conforming to their basic rules of the society, those embodied both in law and in ethical custom (Friedman 1962, 1982); Harold Johnson (1971) formed the concept of "CSR and Stakeholders". A responsible enterprise should take into account the interests of employees, suppliers, dealers, local communities and the nation as a whole. It is noteworthy that pioneered the stakeholder theory with a framework which identified key stakeholders for business (Rahman, 2011). Despite the existence of many perspectives of CSR, Carroll (1979, 1983, 1999), introduced 4 dimensions of CSR namely: economic, legal, ethic and philanthropy.

**Economic responsibilities** refer to a fundamental condition or requirement of running businesses. Therefore, this component will concern economic performance such as to perform in a manner consistent with maximizing

earnings per share, to be committed to being as profitable as possible, to maintain a strong competitive position, and to maintain a high level of operating efficiency (Carroll, 1999; Visser, 2005).

**Legal responsibilities** is a form of obeying to laws and regulations required from society. Society has not only authorized businesses as economic entities, but it has also established the ground rules under which businesses are expected to operate and function.

**Ethical responsibilities** refer to organizations that are aware of fairness and justice and avoid harming to their stakeholders. To fulfill this goal of expectations, the company has to organize the activities that reflect the honor to their consumers, employees, owners and the community and respect to the protection of stakeholders' moral rights.

**Philanthropic responsibilities** include all forms of business giving. Corporate philanthropy embraces business's voluntary or discretionary activities. Philanthropy or business giving may not be a responsibility in a literal sense, but it is normally expected by businesses and is a part of the ordinary expectations of the public.

## Organizational commitment

The definitions of commitment can be defined as the act of promising to fulfill an obligation to someone or something at a future time (Porter, Steer, Boulian, & Mowday, 1974; Zangaro 2008). Moreover, the word "commitment" has been used to describe different concepts in the past as a willingness to put an energy and a loyalty for social systems and the affective attachment of employees for their employers. Organizational commitment arises from a realization by the individual that commit him/herself to their

occupation. In order to make working life meaningful, an individual must commit him/herself to something. In this study, the employed three approaches of organizational commitment which is developed by Allen & Meyer (1987). The approaches includes affective, continuance and normative commitment.

**Affective Organization Commitment** refers to the identification with and contribution to the organization. The commitment is based on employees' emotional bonds with organization. And the employees develop this commitment with the organization mainly through positive work experiences (Allen & Meyer, 1990). **Continuance Organization Commitment** refers to the employee's willingness to remain or leave the organization. This judgment is based on the perceived of both costs in economic and social or personal investment in the form of nontransferable, and other benefits that make it too costly for one to leave and seek employment in another place (Allen & Meyer, 1990).

**Normative Organization Commitment** is a feeling of responsibility to continue employment or commitment based on perceived obligation towards the organization, such as rooted in the norms of mutual benefit. (Allen & Meyer, 1990).

## The relationship between CSR and Organizational Commitment

The previous scholar, Azim (2016) has done the research on CSR and employee behavior, and treated the organizational commitment as mediator. Prutina (2016), conducted the research on the topic of "the effect of CSR on employee engagement. The result indicated the positive effect of perceived external corporate social responsibility and perceived internal corporate social



responsibility on employee engagement, and also confirmed the organizational identification has a mediating role of those variables. Farooq, Payaud, Merunka, & Valette-Florence (2014), conducted the research on the impact of corporate social responsibility on organizational commitment. The research classified CSR in different stakeholders such as community, employee, environment, and consumer. Organizational trust and organizational identification were treated as mediators. The result showed organizational trust and organizational identification fully mediate between the CSR and affective organizational commitment (AOC).

### **Hypothesis Development between CSR and Organizational Commitment**

From the past researches, it can be assumed that there is a positive relationship between employees perceived organizational CSR and employee's organizational commitment. This leads to the following research hypothesis:

*Hypothesis 1. There will be a positive relationship between employee's perceived corporate social responsibility and organizational commitment.*

### **Employee Green Behavior**

Green behavior is behavior that reduces damage to the environment as much as possible, or even supports it, including diminishing energy use, and reducing waste. Basically, green behavior has been defined as 'doing good and avoiding bad' (European Commission, 2012). The theory of green behavior is derived from the neoclassic economic theory, which

involved decision-making processes of individuals and organizations. The process are categorized into three broad assumptions: 1) individuals have rational preferences, 2) they maximize outcomes and 3) they act independently on the basis of full information. This behavior is the result of conscious deliberative thought and that education would result in more pro-environmental behavior. Theory of green behavior developed by Steg & Vlek (2009). They recognized that individuals or household behaviors have a substantial impact on the environment. Green behavior is the behavior that minimizes harm to the environment as much as possible. Those behaviors include minimizing energy use, and reducing waste. Besides, the green five-taxonomy was introduced by Dr. Deniz S. Ones, Dr. Stephan Dilchert in 2012. This concepts was developed based on the psychological research with more than 5,000 people conducted by Dr. Deniz S. Ones, Dr. Stephan Dilchert, and their colleagues. The green five focuses on people's behavior on what they do, not outcomes or resources. The green five taxonomy contains behaviors with common psychological cores and includes several subcategories that are driven by similar purposes of conserving. Behaviors aimed at avoiding wastes and preserving resources includes: reducing use, reusing, and recycling. The "Green five taxonomy" consists of five variables such as working sustainably, avoiding harm, conserving, influencing others, and taking initiative.

**Working Sustainably** represents behaviors that sustain work systems or help work processes and products be more sustainable (Ones & Dilchert, 2012).

**Avoiding harm** or avoiding environmental hazard contains three categories (Ones & Dilchert, 2012). Behaviors can either harm the earth or cause increasing damage, or

else can enhance the earth, making its ecosystems healthier. **Conserving** or natural resources conservation category represents behaviors for instant helping preserve resources and reduce waste (Ones & Dilchert, 2012). **Influencing others** or stimulate others to preserve the environment. The category of influencing others or stimulate others to preserve the environment represents how individuals can influence each other to engage in environmental behaviors.

**Taking initiative** or being initiative in the environment or being initiative in the environment is the last category of the green five taxonomy. This behaviors involves stepping outside the box, taking a risk, and encouraging environmentally-related change (Ones & Dilchert, 2012). This category focuses on how individuals encourage and promote environmentally-friendly behaviors, so the behaviors being encouraged might be included under the other categories.

### **The relationship amongst CSR, organizational commitment and environment sustainability and employee green behavior**

Recently, there has been immense pressure on organizations to follow to environmental standards for their sustainability in the long run. Therefore, organizations are forced to comply with environment regulation or required to minimize their operations negatively affect the environment. There are international standard requirement such as ISO14000, ISO 18000, and so on which organization have to follow those requirements. Since the manufacturing sector consume a lot of resource from environment, it need to pay the significant role to protect the environment (Santhosh & Baral, 2015). Therefore, corporate social responsibility

(CSR) activities of organizations, particularly the activities which involved environmental support may be the best choice to support their environmentally requirements. Muster & Schrader (2015), work on the topic of “Green Work-Life Balance” A new perspective for green HRM”, the study suggested that green HRM can meet its full potential by considering employees in their role both producers and consumers.

Employees learn different kinds of behavior not solely at the office, but also in their personal life. Subsequently, they need to share between working life and private life. Hence, a “green work-life balance concept” is proposed to facilitate environmentally friendly behavior in both working life and private life. This concept offers chances not only for the environment, but also for the company and its employees by increasing work motivation as well as job retention.

Another study, Rae, Sands, & Gadenne (2015) studied on associations between organizations’ motivated workforce and environmental performance. The objectives of this study aim to investigate the association between a motivated and prepared workforce and environmental performance. Three hundred of operating employees in Australian organizations were the respondents. The results identify significant associations between affective commitment, employee performance process, and training, which process improvement and innovation process are treated as mediators. These outcomes can enhance environmental performance, add value-creating processes, and improve work practices. Lamm, Tosti-Kharas, & Williams (2013) conduct the research on organizational commitment and environment sustainability, and found that if the employees comprehend and have to practice to environment sustainability,

they tend to reducing personal and organizational resource consumption (Lamm, Tosti-Kharas, & Williams, 2013).

## Hypothesis development of CSR, organizational commitment and employee green behavior

As mentioned earlier, many researches proved that there are relationship among CSR, organizational commitment and environment sustainability. Therefore, to support this indication hypothesis 2 and 3 are proposed as:

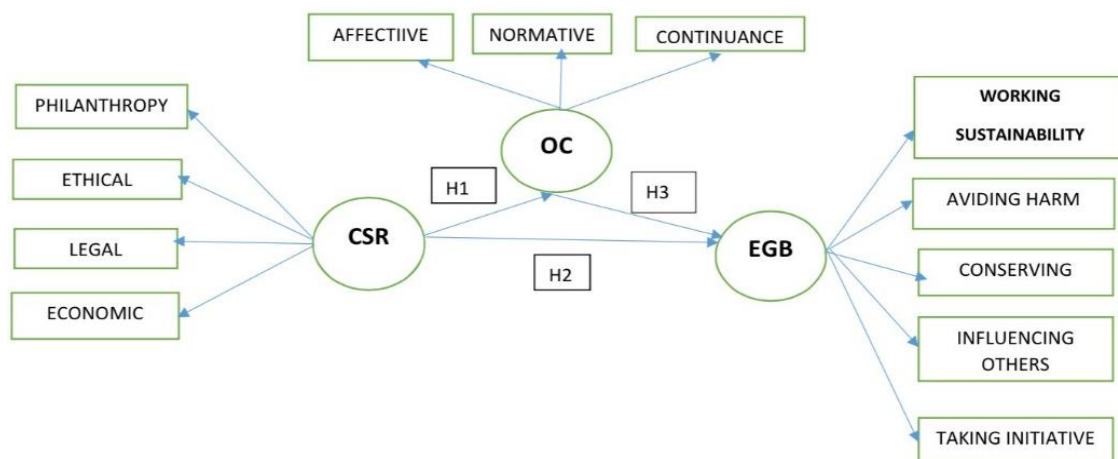
*Hypothesis 2. There will be a positive relationship between organizational*

*commitment and organizational Employee Green Behavior*

*Hypothesis 3. The organizational commitment will be a mediating variable between corporate social responsibility and employee green behavior.*

## The proposed Model of CSR, OC and EGB.

This study suggests a conceptual Model as developed from the literature, which consist of three main constructs, corporate social responsibility (CSR), Organizational commitment (OC) and Employee Green Behavior (EGB), and the hypotheses are shown in the figure 1



**Figure 1** The Propose Model of Corporate Social Responsibility Organizational Commitment and Employee Green Behavior

## Research Design and Methodology

A quantitative approach was used in this study. The structural equation modeling (SEM) will be used to describe the combination of both exploratory and

confirmatory variables for testing the relation through the path model. In addition, the analysis of moment structures (AMOS) will be employed to support the path model.



## Test of Reliability and Validity

**Reliability Test :** Reliability and validity are tested for all 3 factors, CSR, OC and EGB. Hair et.al. (2016) suggested that Cronbach's alpha value is over 0.70 indicating as reliable, and if the value is 0.60, it can be acceptable lower limit of reliability. The results showed CSR's Cronbach's alpha values are ranged from 0.871 to 0.919. While organizational commitment, the Cronbach's alpha varied from 0.738 to 0.893, and employee green behavior having the Cronbach's alpha values over 0.70 which all constructs are considered reliable. Since the reliability is achieved, it indicate the internal reliability.

**Validity Test:** Regarding the IOC techniques is used for content validity, the result show the value of 0.78 which indicated all questions has content validity and are assumed sufficient for the test.

## Sampling

The ESG-100 (2016) companies were selected for this study. ESG is presented as the list of companies which is recognized in terms of Environment, Social and Governance. The ESG-100 covers 8 major industries in Thailand. For the sample size, Kline (2011) recommended that an adequate sample size should be 10 times of the amount of parameters in path analysis. There are 55 Questions in this study, therefore, at least 550 employees from those companies will be respondents for this study. However, 1000 of questionnaires were distributed to target companies, 670 questionnaires are returned, therefore, the response rate of the sample 67.0%. It is an acceptable response rate as per the practical studies, however 638 questionnaires are usable after the data cleaning process. (Hair & Black, 2010)

## Questionnaire Design

The Questionnaire was established from four variables of CSR construct, which was developed from pyramid of Carroll's CSR. The variables are Philanthropic, Ethical, Legal, and Economic. For Organizational Commitment, there are 3 constructs which were applied from Allen & Meyer (1990) and consists of affective, normative and continuance commitment. Additionally, the questionnaires for employee Green behavior are developed from Ones and Dilchert (2012); McConaughy (2014), which consisted of working sustainability, avoiding harm, conserving, influencing others, and taking Initiative. For scale development, participants will specify their response on a seven-point Likert-type scale (Vagias, Wade M. (2006), which are explained as follows: 1 = Strongly disagree, 2 = Disagree, 3 = Somewhat disagree, 4 = Neither agree or disagree, 5 = Somewhat agree, 6 = Agree, and 7 = Strongly agree.

## Data Analysis and Finding

### Exploratory and Confirmatory factor analysis of the constructs of CSR, OC and EGB.

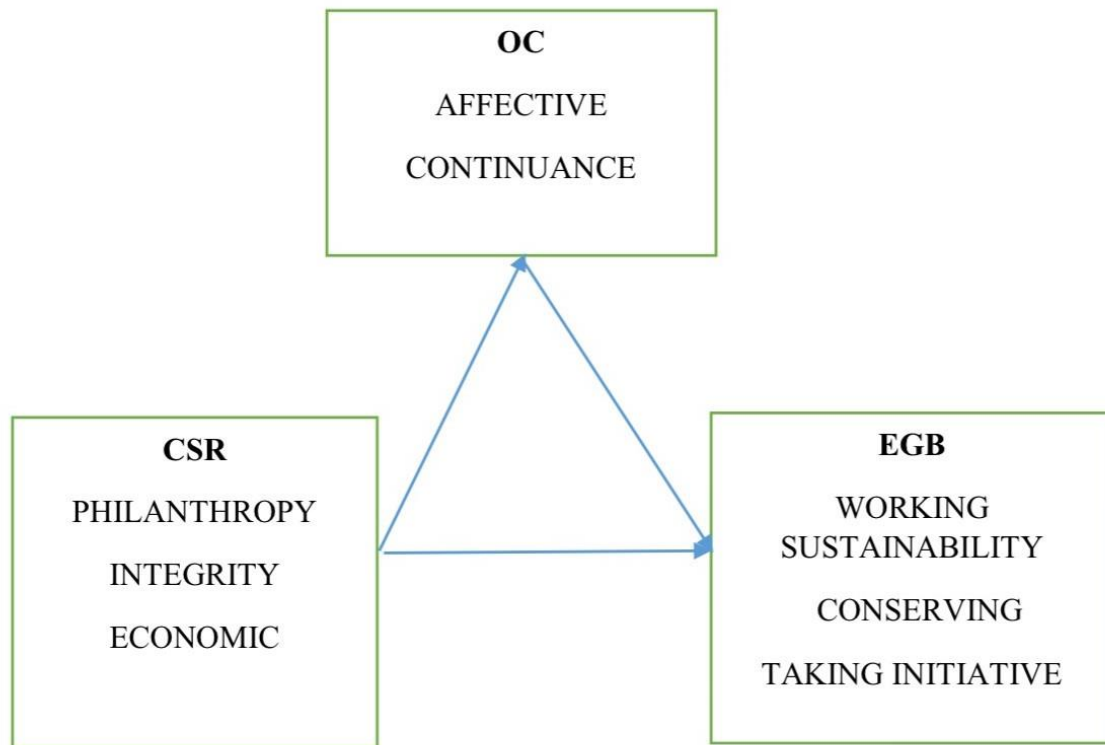
Although, well-established instruments were used to measure the constructs, yet, exploratory factor analysis (EFA) is performed to examine the dimensionalities of all variables. Subsequently, the common factor are grouped in the same dimension, afterwards the items with low communality figures ( $< 0.5$ ), are removed and the remaining measured items were confirmed for using confirmatory factor analysis (CFA) based on proposed theoretical framework. In this study, from the EFA analysis, the 12 components are deducted to 9 components. For CSR construct, ethical component was combine

with the legal component and adjusted to the new term namely “Organizational integrity”. The Organizational commitment was decreased to 2 dimensions’ affective and continuance. While the 5 dimensions of Employee Green behavior was also decreased from 5 to 3 dimensions;

Working sustainability, conserving and taking initiative.

### Adjusted -Analysis Model

As a final part of exploratory analysis, the hypothesized model was adjusted and be shown in figure 2 below.



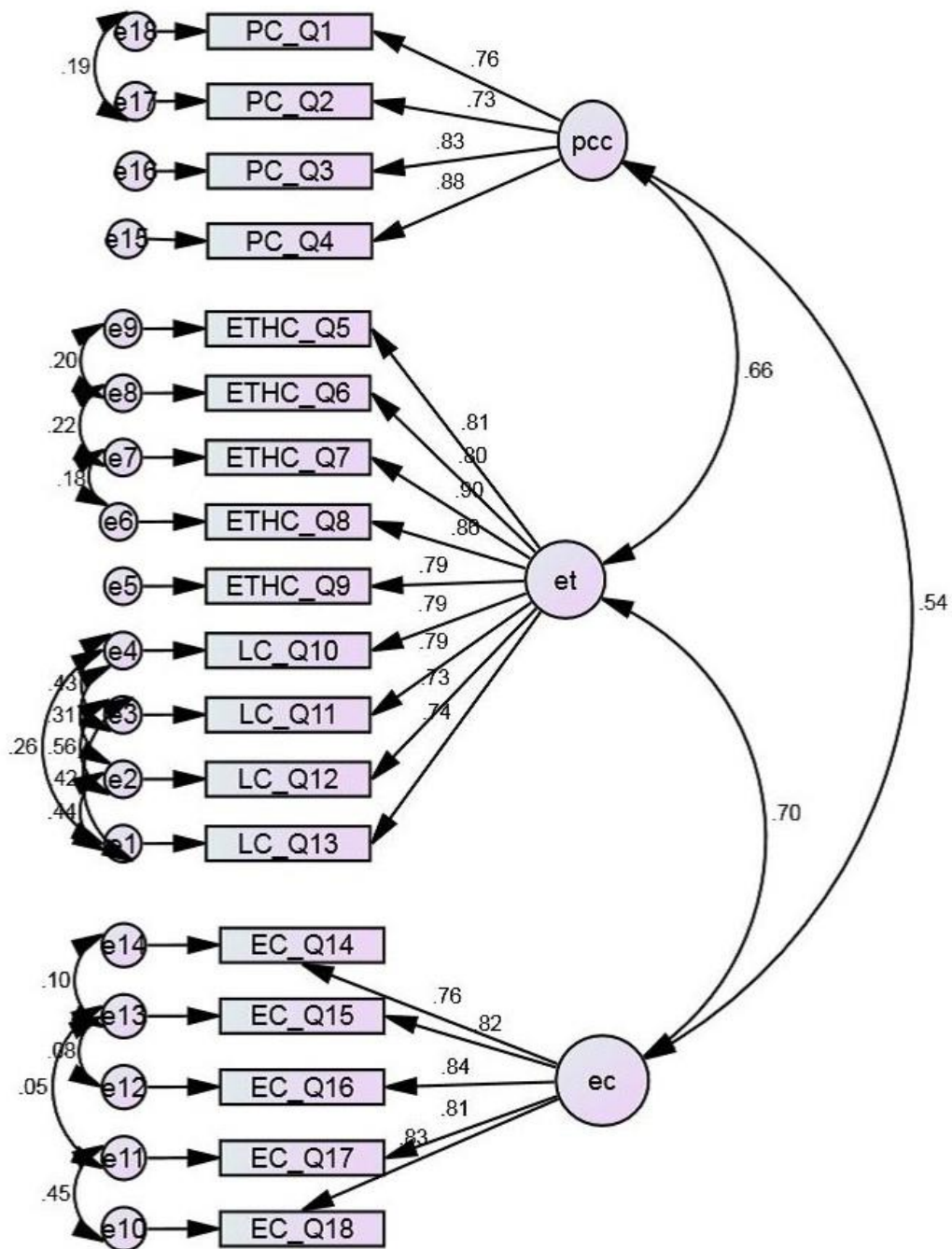
**Figure 2** The developing model of CSR, Employee green behavior and Organizational commitment as a moderator

Subsequently, is to measure the hypothesized paths using structural equation modeling (SEM). That is deals with measurement models for test the relationships between observed measures or indicators and latent variables or factors.

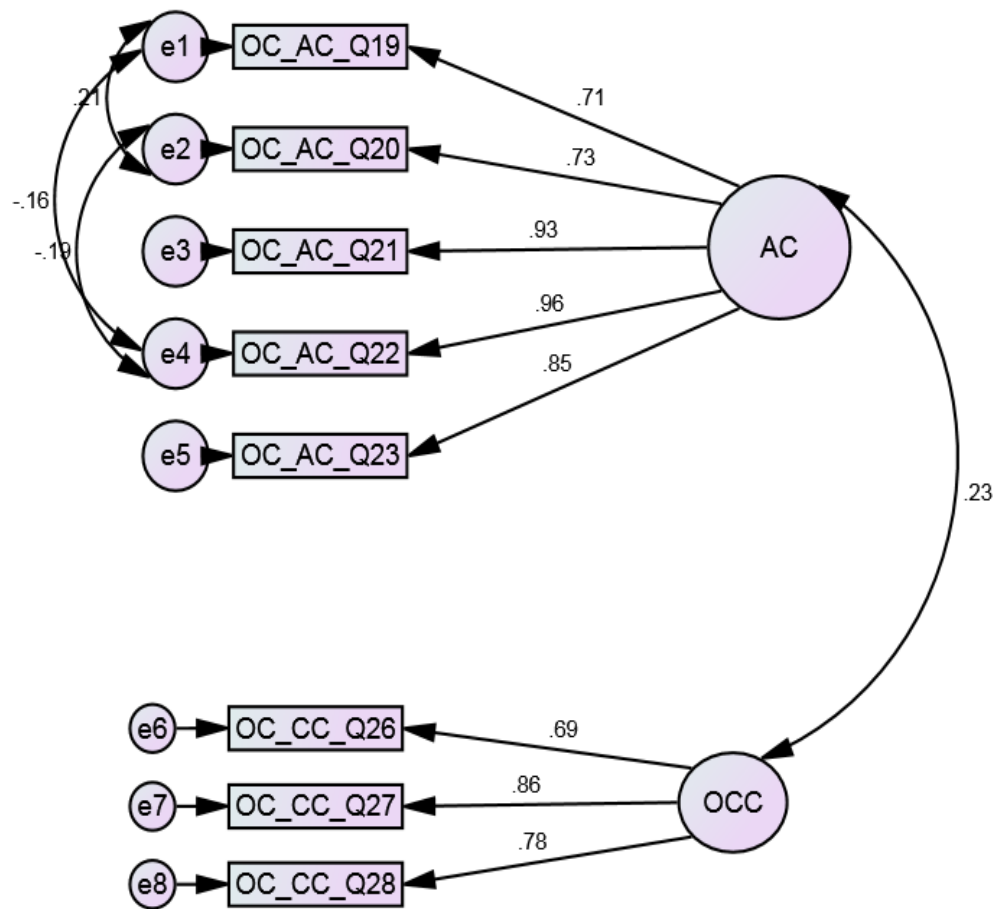
Table 1 and figures 3 - 5 present factor loading of the confirmed items, and the confirmatory factor analysis (CFA) of CSR, organizational commitment and employee green behavior. Besides, the table 2 presented the result of model fit of those three constructs.

**Table 1** Factor loading of the constructs (CSR, Organizational Commitment and Employee Green behavior)

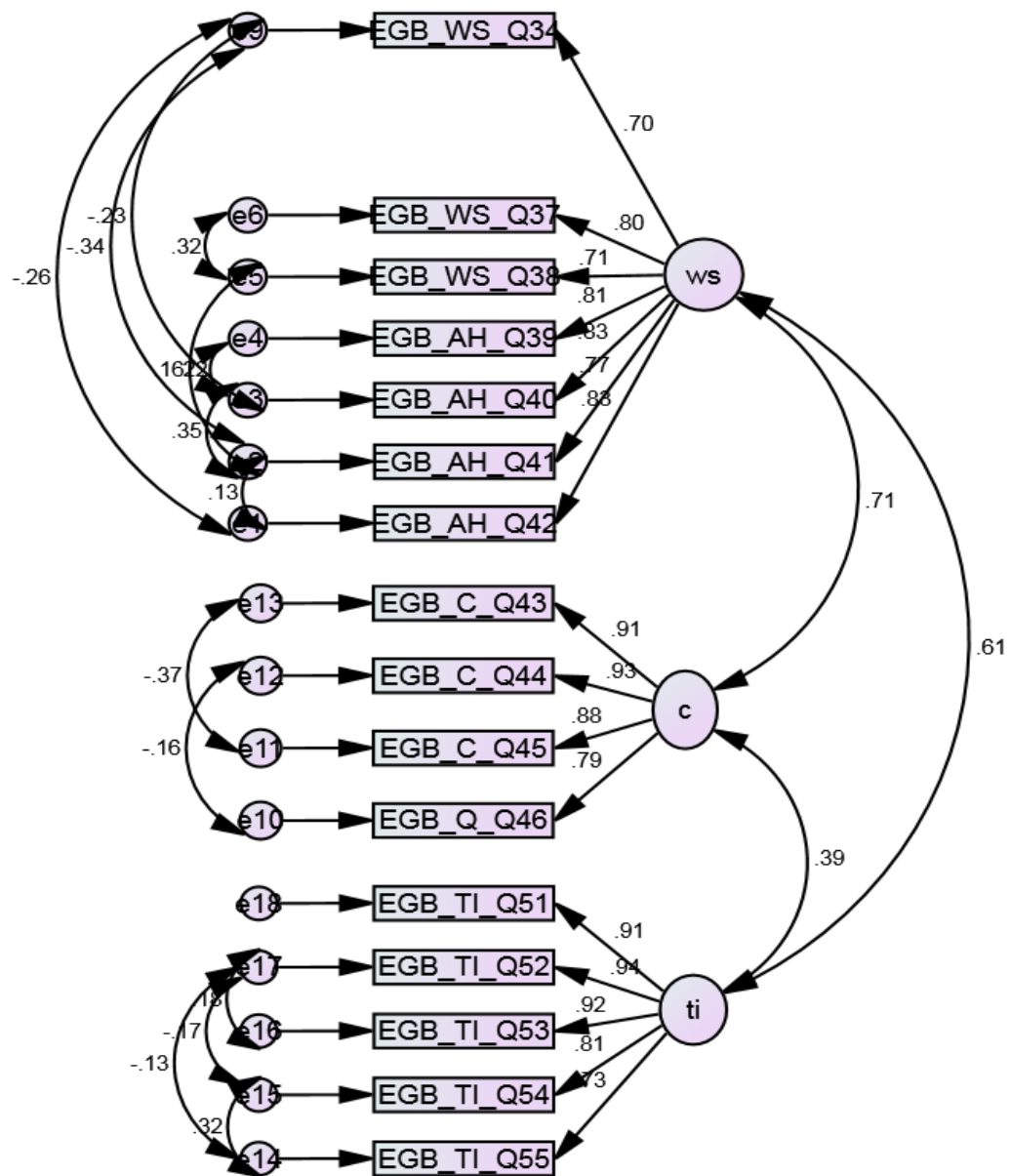
CONSTRUCTS	ITEMS	FACTOR LOADING
CSR	PC-Q1	0.76
CSR	PC-Q2	0.73
CSR	PC-Q3	0.83
CSR	PC-Q4	0.88
CSR	ETHC-Q5	0.81
CSR	ETHC-Q6	0.80
CSR	ETHC-Q7	0.90
CSR	ETHC-Q8	0.86
CSR	ETHC-Q9	0.79
CSR	LC-Q10	0.79
CSR	LC-Q11	0.79
CSR	LC-Q12	0.73
CSR	LC-Q13	0.76
CSR	EC-Q14	0.82
CSR	EC-Q15	0.84
CSR	EC-Q16	0.81
CSR	EC-Q17	0.83
CSR	EC-Q18	0.80
OC	OC-AC-Q19	0.71
OC	OC-AC-Q20	0.73
OC	OC-AC-Q21	0.93
OC	OC-AC-Q22	0.96
OC	OC-AC-Q23	0.85
OC	OC-CC-Q26	0.69
OC	OC-CC-Q27	0.86
OC	OC-CC-Q28	0.78
EGB	EGB-WS-Q34	0.70
EGB	EGB-WS-Q37	0.80
EGB	EGB-WS-Q38	0.71
EGB	EGB-AH-Q39	0.81
EGB	EGB-AH-Q40	0.83
EGB	EGB-AH-Q41	0.77
EGB	EGB-AH-Q42	0.91
EGB	EGB-C-Q43	0.93
EGB	EGB-C-Q44	0.88
EGB	EGB-C-Q45	0.79
EGB	EGB-TI-Q51	0.91
EGB	EGB-TI-Q52	0.94
EGB	EGB-TI-Q53	0.92
EGB	EGB-TI-Q54	0.81
EGB	EGB-TI-Q55	0.73



**Figure 3** Measurement Model of Confirmatory Factor Analysis  
Corporate social Responsibility



**Figure 4** Measurement model of Confirmatory Factor Analysis  
Organizational Commitment



**Figure 5** Measurement model of Confirmatory Factor Analysis of Employee Green Behavior

**Table 2** Confirmatory Factor Analysis: Fit Indices for Model of CSR, OC and EGB

Factor	$\chi^2/df$	GFI	AGFI	NFI	IFI	CFI	RMSEA
CSR	2.917	0.944	0.919	0.964	0.976	0.976	.055
OC	4.775	.974	.927	.984	.987	.987	.077
EGB	4.628	.931	.893	.956	.965	.965	.075

Since the factor analysis took place, and the adjusted model is reformed, therefore, the study focus on analysis of 3 constructs as a whole rather than emphasis of the dimensions.

The confirmatory factor analysis of CSR, it consist of 18 items. Within GFI, AGFI, NFI, IFI and CFI are 0.944, 0.919, 0.964, 0.976, 0.976 as shown in figure 2 and table 2, and residual errors are positive after using confirmatory factor analysis. RMSEA = 0.055 means the model is matched with the data, and  $\chi^2/df$  is 2.917 < 5 means the model is acceptable fit. In addition, all the indexes indicate that the model fit is good fit and all the items can be used to Structure Equation Model analysis.

Besides, the organizational commitment (OC) construct, the items was deducted from 15 to 8 items. Within GFI, AGFI, NFI, IFI and CFI are 0.974, 0.927, 0.984, 0.987, 0.987 as shown in figure 2 and table 1, and residual errors are positive after using confirmatory factor analysis. RMSEA=0.077 mean the model is match with data, and  $\chi^2/df$  1.975 < 5 means the model is acceptable fit. In addition, all the indexes indicate that the model fit is acceptable and all the items can be used to Structure Equation Model analysis.

For employee green behavior (EGB) construct, the items was deducted from 22 to 16 items. Within GFI, AGFI, NFI, IFI and CFI are 0.931, 0.893, 0.956, 0.965 and 0.965 as shown in figure 4 and table 1, RMSEA=0.075 mean the model is match with data, and  $\chi^2/df$  < 5 means the model is acceptable fit. In addition, all the

indexes indicate that the model fit is acceptable and all the items can be used to Structure Equation Model analysis.

## Hypothesis Testing of Mediation Effect

Base on Baron and Kenny's (1986), there are three requirements for testing the mediation effect:

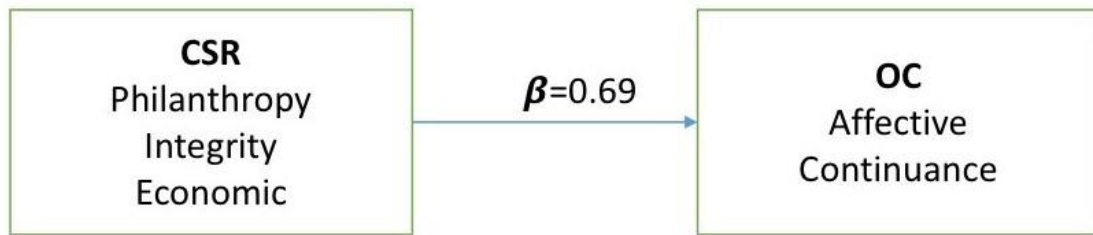
- 1) The independent variable must effect on mediating variables.
- 2) The independent must effect on the dependent variable.
- 3) The mediator variable must effect on the dependent variable.

In this study, CSR play as independent variable, employee green behavior play as a dependent variable, while organizational commitment play as a mediator variable. Furthermore, the standardize regression weight is also employed for this analysis.

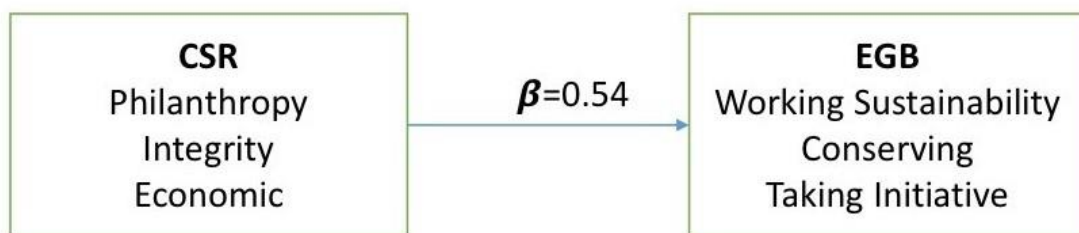
Besides, when all requirements are examined, testing the mediation effect using SEM require significant result (standardize regression) for those variables are implemented, Hair et al (2006). Standardize regression weight has been used for scholar for execute the mediation testing (Mohamad et al, 2014).

In this part, an SEM path diagram was constructed by using AMOS software, figure 6 shows the direct effect path diagram of CSR and OC.

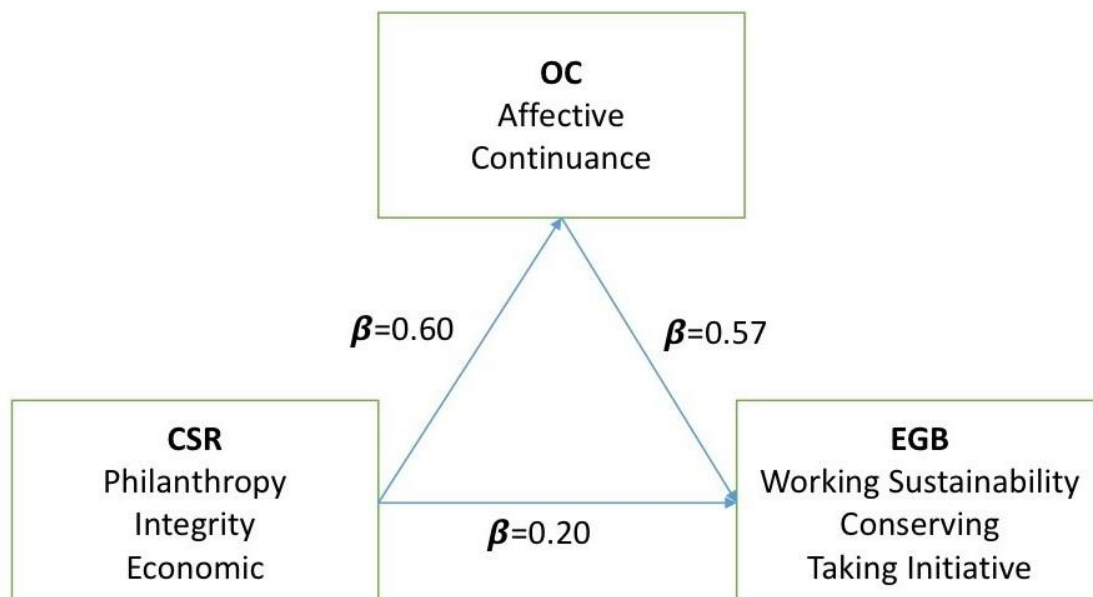




**Figure 6** Confirmatory Factor Analysis of CSR and OC



**Figure 7** Confirmatory Factor Analysis of Corporate Social Responsibility and Employee Green Behavior



**Figure 8** Structural equation modeling of Corporate Social Responsibility, Organizational Commitment, and Employee Green Behavior



In this part, the model is tested for direct effect of CSR to organizational commitment. The results indicated that CSR has positivity relationship with organizational commitment with the beta coefficient = .69 as shown in figure 6 above.

Besides, the model is tested for direct effect of CSR to employee green behavior (EGB), the results indicated that CSR has positivity relationship with employee

green behavior with the beta coefficient = .54 as shown in figure 7.

Finally, the model is test for the relationship between CSR, employee green behavior and organizational commitment (OC) as a mediator. The beta coefficient of CSR to EGB is drop down from .54 to .20. The value of .20 > .0, therefore, organizational commitment perform as partial mediator.

**Table 3** The summary of Standardize Estimate : Relationship among CSR, OC and GB

			Estimate	S.E.	C.R.	p	Label
OC	<---	CSR	.918	.076	12.106	***	par_42
EGB	<---	CSR	<b>.258</b>	<b>.045</b>	<b>5.766</b>	***	<b>par_40</b>
EGB	<---	OC	<b>.362</b>	<b>.035</b>	<b>10.209</b>	***	<b>par_41</b>

From the table 3 indicates that corporate social responsibility has a positive effect on Organizational Commitment (0.918), the Organizational commitment has positive effect to Employee green behavior (0.362). Besides, CSR has a positive effect on Employee Green Behavior is drop down from .497 to 0.258, after the Organizational commitment variable enter to the model. Therefore, this model support the hypothesis that Organizational is mediating variable between Corporate Social Responsibility and Employee Green Behavior. All standard error (SE) of the path of CSR to OC, CSR to EGB and OC to EGB are .076, .045, .035 respectively which consider small value indicate the good

reliability of the mean (Altman & Bland, 2005).

All critical ratio of the three paths are 12.106, 5.766, and 10.209 which is greater than 1.96 mean the factor covariance is significant (Schumacker & Lomax, 2004). All p-Value are < .01 mean significant result. In conclusion, this study find the expected positive relationship between CSR, organizational commitment, and employee green behavior, as well as a positive association between organizational commitment and employee green behavior. The analysis also proved that organizational commitment mediates the link between CSR and employee green behavior as show in the table 4 below.

**Table 4** The result of hypothesis test

Item	Hypothesis	Result
H1	There is a positive relationship between Corporate Social responsibility and organizational commitment	Accepted
H2	There is a positive relationship between organizational commitment and organizational Employee Green Behavior	Accepted
H3	The organizational commitment is a mediating variable between corporate social responsibility and employee green behavior.	Accepted

## Conclusion, Discussion and Recommendation

### Conclusion and discussion

In conclusion, hypothesis testing of the study found that there is a positive relationship between corporate social responsibility and organizational commitment, as well as a positive relationship between Organizational commitment and Employee green behavior. Moreover, the Organizational commitment played as a mediating variable between corporate social responsibility and Employee green behavior.

Therefore, the result of this study is very relevant literature findings. For instance, Brammer, Millington, & Rayton (2007) found a positive correlation between perceived CSR and employees' attitudes toward organizational commitment. In addition, Ali, Rehman, Ali, Yousaf, & Zia (2010); Tilleman (2012) and Terano (2016) also found that employee's perceptions on corporate social responsibility activities significantly influenced organizational commitment. (Ali, Rehman, Ali, Yousaf, & Zia (2010), Tilleman 2012, Terano (2016)). Furthermore, Asim (2016) has done the research on Corporate Social Responsibility and employee behavior, the result showed that there was a positive relationship among perceived CSR and

organizational commitment (OC), employee engagement and organizational citizenship behavior related to organization. Besides, the result of the study showed the positive relationship between Corporate Social responsibility and Employee green behavior which relevant to the data form Cone communication in 2015, which are revealed that employees want to work with the organizations which concern the environment

Moreover, companies with strong environment sustainability and social responsibility programs have much higher employee engagement rates (Davies, 2014).

### Research implication

From this study, the result this study can be used to enhance better understanding and give further suggestion for both scholars as well as business practices. This Research provides a roadmap for business organization to exploit or modify their business models particularly in CSR which is modified into 3 dimension, from this result, we suggest the scholar employ the concept of organizational integrity into the future research in the relevant area. Furthermore, the result showed the Organization Commitment play as a mediating role between corporate social responsibility and Employee green

behavior. Hence, this study explored the conduct of Organizational commitment, the scholars may applied the finding of this construct to relevant study in the organizational behavior such as employee engagement, or perceived organizational support or other related variables. Regarding to the past research referred that it is still shortage of the use of the organizational commitment as a mechanism to link with the CSR initiatives (Bhattacharya, Korschun, & Sen, 2009). It is clear that the organizational commitment leads to the higher employee green behavior and influence the environmental sustainability.

Therefore, we recommend the practitioners apply this research result to their organizations, since the Organization commitment reflect to green employee behavior, it can help the organization in terms of lowering the cost by using the model of Employee green behavior from this study. Furthermore, the terms of green behavior showed that the green behavior is quite difficult to develop as the individual's level, because it is unpredictable (Steg and Vlek, 2009). From this study, we focus on employee points of view the refore, the business organization should apply this evident to

management level in order to confirm the feedback from executive of the organizations.

### **Limitations and Recommendations for Future Research**

Regarding to the research methodology, this research employed the quantitative method, and focused merely on employees points of view. The research result may inadequate for conclude the total picture of organization presentation.

In terms of examining models, all of constructs may not be accustomed to Thai context, particularly the normative commitment which is recognized the same meaning of Affective commitment. For recommendations for future research, as mentioned on the limitation section, we recommend the future research to conduct both qualitative and qualitative in or der to acquire deep information particularly form management level. Since, the result showed that dimensions of both organizational commitment and employee green behavior are adjusted to 2 and 3 dimensions respectively. However, the future research should develop the models and test all specific dimensions of all constructs.

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# Is guerilla marketing worth investing?

## The impacts of guerilla marketing on purchase intention

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### Abstract

**Purpose** - This study attempts to determine the effects of Guerilla marketing on Generation Y's intention to purchase once they were exposed to Guerilla advertisement in Bangkok, Thailand. **Methodology** - The research was quantitatively conducted through the use of a face-to-face questionnaire. In so doing, 600 questionnaires were distributed to respondents and 449 were returned, yielding a response rate of 74.8%. Least Squares Regression (OLS) and Multiple Regression Analysis were used to test the proposed hypotheses. **Findings** - The result showed a positive relationship between novelty, relevance, aesthetics, surprise, humor, emotional arousal and clarity (the independent variables) and purchasing intention (the dependent variable) when tested with OLS. Suspecting that the same set of independent variables may lose their significant effect on purchase intention when considering the independent variables all together, Multiple Regressions were then used and different results were obtained. In this sense, novelty, aesthetics, surprise, and humor had a stronger impact on purchase intention while that of the other independent variables (relevance, emotional arousal, and clarity) was weaker, and was not statistically supported. **Practical implications** - Aesthetics had the greatest impact on purchase intention which should be taken into an account when guerilla marketing related activities are used. Moreover, firms and advertising agencies should find creative ways (novelty) of communication in order to interact effectively with target audiences. Surprise and humor (as the main differentiators between traditional marketing and Guerrilla marketing) had significant relationships with purchase intention. As far as the Guerilla marketing context is involved, priority should be given to novelty, aesthetics, surprise and humor as they are positive re-inforcers.

**Keywords:** Guerilla marketing, purchase intention, generation Y

## Introduction

Despite the dominance of conventional marketing, for example, television advertisements, radio spots, newspapers, billboards, direct sales and marketing, its effectiveness remains debatable especially in the era of globalization and the internet. Flooding consumers with advertising messages leads to wear-out effects, reduced consumer attention and memorability, declining brand loyalty, and changes in consumer demographics and has weakened the effectiveness of traditional forms of advertising and marketing in many ways (Dawesa, Waardenb, & Driesenera, 2015; Edwards, Li, & Lee, 2002; Rosengren, 2008). The aforementioned concern has recently shed light on Guerrilla marketing in both academia and business practice as it could lead to a better method of marketing communication when used in combination with the no-longer-effective traditional marketing (Nufer, 2013).

Even though Guerrilla marketing was introduced long ago, the term has been defined differently (Hutter & Hoffmann, 2011). However, the mainstream of Guerrilla marketing is comprehended similarly among scholars. Guerrilla marketing is an unconventional way to conduct marketing activities aiming at drawing attention from a large audience with a very small financial effort (Dinh & Mai, 2016). Guerrilla marketing has importantly become an effective tool in highly competitive environments where consumer behaviors are changing rapidly as a byproduct of technology advancement and the internet. That is to say consumers

are less attached to TV advertisements or magazines while online advertising and electronic media have steadily increased as far as media habits are concerned (Palmer & Lewis, 2009). With its strategic concept, while advertising on a small budget, Guerrilla marketing has become very beneficial to both small and medium-sized enterprises (SMEs) and global players. Examples of big businesses that use Guerrilla marketing are UNICEF's 'Dirty Water' vending machine; the Swiss Cancer Foundation's 'our skins never forget'; Ford Mustang's smoking burnout billboard; The Sound of Music Show's 'flash mob in Belgium'; and Coca-Cola's friendship machine (Lum, 2010a, 2010b, 2011).

Having said that major consumer groups have shifted over time, Generation Y (Gen Y hereafter) has become an important profitable consumer segment in the global marketplace as a result of the dwindled spending power of the older generations in recent years (Nowak, Thach, & Olsen, 2006). With Gen Y's unique consumer behaviors (large spending power, guilt-free spending habits, the ability to influence other's spending, difficult to please), practitioners are required to put more effort into capturing their attention. According to Neuborne (1999), "marketers who don't bother to learn the interests and obsessions of Gen Y are apt to run up against a brick wall of distrust and cynicism". Therefore, it is worth exploring the effects of Guerrilla marketing on Gen Y's purchase intention, especially in adverse economic conditions where firms are more carefully spending on advertising.



When selecting the thesis of the paper, several dimensions were taken into consideration including the weakening of traditional advertising effectiveness, the increasing popularity and effectiveness of unconventional marketing communication, and the importance of Gen Y in today's competitive environment. By reviewing existing literature, the investigation into the relationship between Guerrilla marketing and Gen Y in Thailand has not yet received full attention from scholars. Therefore, the objectives of this study are to determine the effects of Guerilla marketing on Gen Y's purchase intention when they are exposed to Guerilla advertisements. Given that several interrelated dimensions of so-called Guerilla strategies are involved, it also aimed to investigate whether which dimension(s) will significantly influence consumer purchase intention. The expected benefits of this current research are not only the contribution to academic literature specifically in the marketing domain, but also for business practitioners as well. In terms of the managerial perspective, the given findings lead to superior effective marketing strategies so that management effort and resources can be prioritized appropriately. Once the key components of Guerilla marketing are identified, the nature of Guerilla marketing would allow small sized companies, for whom the budget is normally limited for marketing activities, to communicate well with their targets while spending less money. On the other hand, the current research also brings advantages to businesses as it would shed some light on Guerilla marketing strategies for those

firms who might overlook or underestimate the power of Guerilla marketing.

## Literature review

### Concept of Guerrilla Marketing

The term 'guerilla' was originally used for military purposes as a method of warfare that is built on raids and carrying out surprise attacks (Guevara, 1960 as cited in Hutter & Hoffmann, 2011). Since then, the concept has been transferred from the military perspective to the business and marketing context with by the employment of similar tactics; hitting targets (customers) by surprise. Guerrilla marketing was first introduced and received wider attention after the publication of Jay Conrad Levinson (Isaac, 2014). However, the interpretations of the Guerilla marketing concept varies amongst scholars and persons actively engaged in the marketing domain.

Levinson, the owner of the Guerrilla Marketing registered trademark, initially defined Guerilla marketing as "how entrepreneurs can use marketing to generate maximum profits from minimum investments" (Levinson, Levinson, & Levinson, 2007). While Hospes (2012), described Guerrilla marketing as "an advertising strategic drive at a random moment - by which it is difficult for the general public to predict the occurrence of such event - in an unusual way to create an unforgettable-wow effect to the right audience (as cited in Overbeek, 2012), some argued that it is a promotional strategy that uses unconventional

locations with word-of-mouth campaigns aiming to push products into the market (Baltes & Leibing, 2008). Ahuja, Michels, Walker, and Weissbuch (2007) agreed and proposed that the objective of this so-called Guerrilla marketing aims for the audience to be deeply engaged with the message and develop a willingness to circulate it further with their social peers through word-of-mouth.

Eicher (2001) and Kraus, Harms, and Fink (2010), shed light on the financial effort and defined the term Guerrilla marketing as a variety of low-cost marketing communication techniques (expected to be less expensive, in comparison with conventional marketing) that allow small

companies to act like and compete with big companies. This paper regards Guerrilla marketing as “the unconventional and alternative marketing activities with minimum investment that aim to fulfill the pitfalls of traditional marketing in order to gain the customer attention. These marketing activities are seldom repeatable as it intends to create surprising and shocking effects in society. Having said that Guerrilla marketing is not capable of replacing traditional marketing, some characteristics of Guerrilla marketing illustrate new directions to achieve advertising effectiveness (Nufer, 2013). The differences between traditional marketing and Guerrilla marketing are presented in Table 1.

**Table 1** Traditional marketing versus Guerrilla marketing

	Traditional Marketing	Guerilla Marketing
<b>Primary investment</b>	Financially concern	Time, energy, and imagination
<b>Geared towards ...</b>	Big business	Small business
<b>Measure of success</b>	Sales	Profit, Relationship built
<b>Communication</b>	Single method; advertising, direct mail, website, PR, broad media	Combination works best
<b>Main focus</b>	Taking from customers	Giving and educating customers
<b>Technology</b>	Ignore the importance of technology	Embrace technology

*Source: Levinson et al. (2007)*

## Purchase Intention; Dependent Variable

Purchase intention, used interchangeably with buying willingness, develops when a customer has a conscious plan to purchase a product or service in the future. The attitude of individuals has a direct impact on consumers' purchase intention (Bian & Forsythe, 2012). Also an, affirmative relationship between advertising and

purchase intention was confirmed (Petrescu, Korgankar, & Girona, 2015). According to the study of Dinh and Mai (2016, p. 193), “the more creative and credible the ads are, the higher purchase intention the customer have, which in turn is a critical factor to predict their purchase behavior”. In this sense, it can be said that the higher purchase intention an individual has, the greater the likelihood a particular commodity will be actually purchased.

## **Guerilla Marketing Effects; Independent Variables**

Even though there are various definitions, the concept and understanding of Guerrilla marketing is mutually agreed. Through the characteristics of Guerilla marketing, seven Guerilla marketing effects are constructed; novelty, relevance, aesthetics, surprise, humor, emotional arousal and clarity (Dinh & Mai, 2015, 2016).

**Novelty;** While a large amount of financial investment is highly important as far as traditional communication is concerned; time, energy and imagination are the dominant expenses in Guerrilla marketing. In this sense, it is important for firms to create such differences between itself and businesses with whom it competes. Novelty is used interchangeably with originality (Runco & Charles, 1993). The most accepted notion regarding novelty is “unusual and infrequent” and can be considered as a standard definition of novelty (Runco & Jaeger, 2012). Novelty has increasingly become important in the marketing context as it is perceived to be a major concern in advertising strategy (Chen, Yang, & Smith, 2014). A successful guerrilla marketing approach requires such novelty and creativity to draw consumers’ attention. Much effort has been made to verify the relationship between novelty and its influences on consumers’ responses (Ang & Low, 2000; Baack & Till, 2013; Pieters, Warlop, & Wedel, 2002; Yang & Smith, 2009). Indeed, the novelty effect is essential and worth investigated as novelty positively affects advertising effectiveness and, consequently, consumer attitude and behavior (Ang,

Leong, Lee, & Lou, 2014). The hypothesis is as follows:-

**H1:** There is a relationship between novelty and purchase intention.

**Relevance;** Relevance is labeled as the extent to which ad or brand elements are meaningful and valuable to customers (Smith, MacKenzie, Yang, Buchholz, & Darley, 2007), and are a reflection of how information contained in a stimulus contributes to messages being communicated (Heckler & Childers, 1992). The main concept of relevance in this sense is the meaningfulness of the message when customers perceive the ad. However, not every novel and creative advertisement succeeds as it is highly dependent on how well consumers can perceive its relevance or the meaning of the advertising. Only when an ad can convey meanings related to the product or service, is novelty then established (Haberland & Dacin, 1992). Accordingly, relevance helps customers to have better product knowledge and shape up consumers’ perceptions in terms of ad novelty and consequent behaviors. The hypothesis is as follows:-

**H2:** There is a relationship between relevance and purchase intention.

**Aesthetics;** As Guerilla marketing is concerned with any unexpected means (far beyond traditional communication) trying to link unrelated and complex message components together, all signs, symbols, contexts, and parts of communication must be well planned to

better their integration. In conclusion, aesthetics in the Guerilla marketing context refers to the structured construction of the message rather than focusing on its beauty (Besemer & O'Quin, 1986 as cited in (Dinh & Mai, 2016). The hypothesis is as follows:-

**H3:** There is a relationship between aesthetics and purchase intention.

**Surprise;** Surprise is a sharp attention-getting means especially when a consumer is overexposed to advertising and information (Derbaix & Pham, 1991). Customers are surprised when they find "the placement of advertising in unusual and unexpected places (location) often with unconventional methods (execution) and being the first or only ad execution to do so (temporal)" (Luxton & Drummond, 2000, p. 735). This unexpectedness strives to make a customer "wow" and surprise them accordingly. It had been verified that when the advertising is interpreted and perceived in a different way to customers' expectations, a more favorable ad and brand attitude will be formed, resulting in higher consumers' intention to purchase (Nagar, 2015). The hypothesis is as follows:-

**H4:** There is a relationship between surprise and purchase intention.

**Humor;** Practitioners believe that effective the humor effect enhances customer attention, and is a powerful tool in advertising strategy. However, humor contains risk; for example what is found funny in New York often fails to draw

attention in Dallas (Sternthal & Craig, 1973). Therefore, humor in advertising must be used cautiously, or else resistance may arise. It is worth mentioning that humor tends to appear only in the early stage of advertisement and is used less for durables commercials (Chan, 2011) as the repetitiveness of an ad may damage the humor effect for a given advertisement. Humor in advertising leads to favorable attitudes towards advertising and brand and heightens consumers' purchase intention (Eisend, 2011; Eisend, Plagemann, & Sollwedel, 2014). Consequently, the relationship between humor and the dependent variable - purchase intention- is worth studying. The hypothesis is as follows:-

**H5:** There is a relationship between humor and purchase intention.

**Emotion Arousal;** Similar to other aspects of advertising, emotional arousal also intends to draw attention from audiences and eventually leads to preferred consumer behavior. Emotional arousal arises after an audience exposed to advertising. It is believed that the emotion embodied in a message can enrich brand favorability even when the rational content fails to do so. A positive mood and feeling towards an ad or brand may have a favorable effect on buying intention (Dinh & Mai, 2015, 2016; Heath, 2007; Isen & Shalker, 1982; Muehling & Lacznia, 1988; Niazi, Ghani, & Aziz, 2012). The hypothesis is as follows:-

**H6:** There is a relationship between emotional arousal and purchase intention.

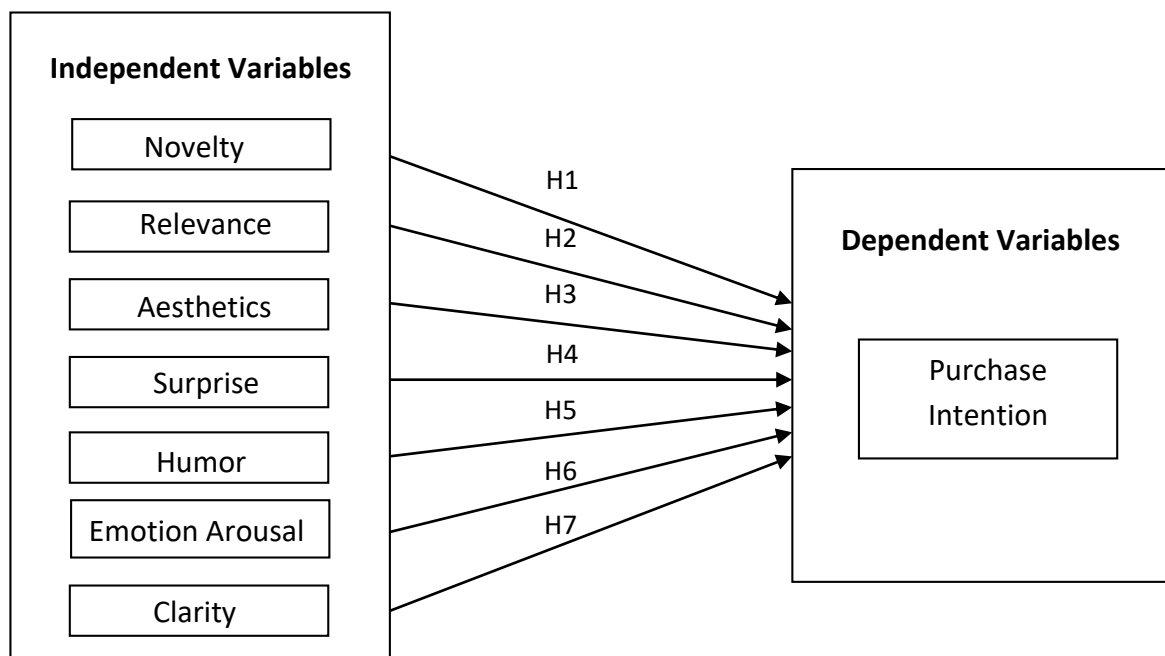
**Clarity;** The concept of clarity is related to the degree to which audiences understood the intended message in advertisements (Dinh & Mai, 2016). Even though ads may be novel, relevant, and humorous, they

might be counterproductive if the message clarity is lacking. In this sense, attention must be given to this concern. The hypothesis is as follows:-

**H7:** There is a relationship between clarity and purchase intention.

## Conceptual Framework

Conceptual framework of this paper is illustrated in Figure 1



**Figure 1** Conceptual framework

## Methodology

### Sampling design

The main objective of this paper is to identify the impacts of Guerrilla marketing on purchase intention with the limitation of consumers' age. At the individual level of the unit of analysis, Gen Y consumers (born between 1977 and 1994; 22-39 years

old, as of 2016) are considered as the research objects. This study employed a purposive sampling method by which individual respondents were selected based on the condition of age classification. This study conducted a quantitative consumer questionnaire in Bangkok, Thailand. Being more specific, a face-to-face questionnaire (a questionnaire returned to the researcher

on the spot) was employed. In so doing, more information can be given to respondents upon request leading to an improved response rate and greater result accuracy. In sum, 600 questionnaires were distributed to respondents and 449 of those were returned, yielding a response rate of 74.8%.

### **Guerilla ads used in the questionnaire**

Even though choosing Guerilla advertisements (used in the questionnaire) requires much consideration, such exploratory research allows the researcher to employ a wide range of ads. Accordingly, it enables the identification of the effects of guerrilla marketing on consumer perceptions in general rather than developing a particular strategy for a brand, product, or a specific marketing strategy. Based on the fact that audiences may not have marketing-based knowledge and could not know whether such given ads fall into the Guerilla marketing category, the so-called Guerilla marketing

concept is much less important than its effects on the customers internal experience. In turn, it strengthens the purpose of this research as it attempts to identify the effects from a consumer perspective. The Guerilla ads used in this paper are exhibited in Appendix A.

### **Measurement scale**

The measurement scales used in the study were adopted from previous marketing researches as their reliability and validity are already established. As many respondents tend to take a neutral position, and despite the pitfalls of using Likert scales, Likert scales were used in this study (Dalal, Carter, & Lake, 2014; Fam, Gray, & Llanes, 2003). Thus, respondents will be obliged to express an opinion on each item. Therefore, all independent and dependent variables were measured on a six-point Likert-scale (1=Strongly Disagree and 6=Strongly Agree). The measured items, sources, and scales are summarized in Table 2.

**Table 2** Summary of measurement scales

	Key Construct	n.	Item	Author(s)
1	Novelty	5	This ad is unique. This ad is full of imagination. This ad is original. This ad is fresh. This ad enables the product to be differentiated.	Guerin (2008)
2	Relevance	3	This ad contains some good ideas. This ad is interesting. This ad has deep meaning.	Guerin (2008)
3	Aesthetics	5	This ad is developed with care. This ad is beautiful. This ad is artistic. This ad is well designed. This ad is fascinating.	Guerin (2008)
4	Surprise	4	I was amazed the first time I saw this ad. This ad is surprising. This ad makes me startled. This ad is unexpected.	Guerin (2008); Scherer (2005)
5	Humor	4	This ad is playful. This ad is funny. This ad is humorous. This ad is amusing.	Zhang (1996)
6	Emotional Arousal	3	This ad makes me feel aroused. This ad makes me feel wide-awake. This ad makes me feel frenzied.	Mehrabien & Russell (1974) as cited in Dinh and Mai (2015)
7	Clarity	4	I understood the ad very well. I can quickly understand the ad message. It's easy to understand the ad message. I found the message very clear.	Pelsmacker, Geuens, and Anckaert (2002)
8	Purchase Intention	3	I will consider buying a product. I am certain to buy a product. I will look for more information about a product.	Pelsmacker, Decock, and Geuens (1998)

### Back translation technique

Since the research sample in this study is limited to Thai consumers, a questionnaire written in Thai is necessary to enhance result accuracy and data validity. Therefore, a back translation technique was used to minimize language errors. The construct measurements in this research developed from previous research materials were originally written in English. These questions were then translated into Thai. Afterwards, the questions were back translated into the original language to verify their accuracy.

### Data analytical approach

The Statistical Package for Social Sciences (SPSS) is employed to analyze the quantitative data collected. Firstly, the validity and reliability of the questionnaire is tested by means of Exploratory Factor Analysis and Cronbach's Alpha. Once the questionnaire is verified, Ordinary Least Squares Regression (OLS) and Multiple Regression Analysis are used to test the hypotheses which investigate the relationships between seven independent variables and the dependent variable.



## Results

### Descriptive statistics of the samples

A total of 449 questionnaires were returned, yielding a valid return rate of 74.8%. Among 449 respondents, 69.9 percent were female. The average age of participants was 29.9. Almost 70 percent of the participants hold a bachelor degree. Respondents who were exposed to more than 5 advertisements per week accounted for more than 80 percent of the total respondents.

### Reliability and Validity Tests

To ensure the reliability and validity of the tool used in the study, both Exploratory Factor Analysis and Cronbach's Alphas coefficient were employed. The Cronbach's coefficient of every item reported 0.7 or greater than 0.7, which clearly showed that the scale requires no changes and, therefore, every item has been retained and is useable for further analysis. Table 3 demonstrated the reliability and validity test for all variables.

**Table 3** Exploratory Factor Analysis and Reliability Coefficient result

Key Construct	Item	Factor Loadings	Reliability Coefficient
<b>Novelty</b>	This ad is unique.	0.793	0.869
	This ad is full of imagination.	0.650	
	This ad is original.	0.715	
	This ad is fresh.	0.829	
	This ad enables the product to be differentiated.	0.773	
<b>Relevance</b>	This ad contains some good ideas.	0.662	0.787
	This ad is interesting.	0.845	
	This ad has deep meaning.	0.708	
<b>Aesthetics</b>	This ad is developed with care.	0.789	0.919
	This ad is beautiful.	0.779	
	This ad is artistic.	0.739	
	This ad is well designed.	0.812	
	This ad is fascinating.	0.870	
<b>Surprise</b>	I was amazed the first time I saw this ad.	0.585	0.862
	This ad is surprising.	0.796	
	This ad makes me startled.	0.683	
	This ad is unexpected.	0.755	
<b>Humor</b>	This ad is playful.	0.704	0.942
	This ad is funny.	0.655	
	This ad is humorous.	0.779	
	This ad is amusing.	0.768	
<b>Emotional Arousal</b>	This ad makes me feel aroused.	0.576	0.829
	This ad makes me feel wide-awake.	0.775	
	This ad makes me feel frenzied.	0.680	
<b>Clarity</b>	I understood the ad very well.	0.822	0.920
	I can quickly understand the ad message.	0.806	
	It's easy to understand the ad message.	0.843	
	I found the message very clear.	0.782	
<b>Purchase Intention</b>	I will consider buying a product.	0.882	0.836
	I am certain to buy a product.	0.900	
	I will look for more information about a product.	0.830	

## Factors Affecting Purchase Intention

The Pearson correlation coefficient for seven independent variables and the dependent variable was employed in order to analyze the correlation and relationships between variables. The result showed a positive relationship between every independent variable and the dependent variable, all of which are statistically supported. Once consumers perceive a higher level of novelty,

relevance, aesthetics, surprise, humor, emotional arousal, and clarity used in advertising, they tend to have greater purchase intention. The results are summarized in Table 4. Once the relationships between variables were statistically confirmed, Ordinary Least Squares Regression (OLS) was then run separately to test the relationship between each independent variable and the dependent variable. Consequently, seven simple regressions are presented in Table 5

**Table 4** Correlation between Variables

	1	2	3	4	5	6	7	8
1. Novelty	1	.777**	.849**	.738**	.715**	.634**	.682**	.688**
2. Relevance		1	.791**	.711**	.596**	.651**	.689**	.613**
3. Aesthetics			1	.731**	.613**	.716**	.678**	.751**
4. Surprise				1	.495**	.908**	.489**	.671**
5. Humor					1	.399*	.641**	.676**
6. Emotional Arousal						1	.503**	.614**
7. Clarity							1	.549**
8. Purchase Intention								1

**Table 5** Ordinary Least Squares Regression

<i>Independent Variable</i>	<b>Unstandardized Coefficients</b>	<b>p-value</b>	<b>R Square</b>	<b>Adjusted R Square</b>
1. Novelty	.847	.000	.687	.685
2. Relevance	.751	.000	.613	.606
3. Aesthetics	.790	.000	.751	.664
4. Surprise	.588	.000	.672	.631
5. Humor	.599	.000	.678	.638
6. Emotional Arousal	.563	.000	.615	.609
7. Clarity	.514	.002	.549	.527

*Dependent Variable: Purchase Intention*

Based on the information shown in Table 5, all seven independent variables statistically positively affected purchase intention. However, the variables that most affected purchase intention were

novelty (84.7%), aesthetics (79%) and relevance (75.1%) whereas clarity (51.4%), emotional arousal (56.3%), and surprise (58.8%) least affected consumer purchase intention.

**Table 6** Multiple Regression Analysis

		Unstandardized Coefficients	t-value	p-value
Independent Variables	(Constant)	.515	2.589	.010
	Novelty	.233	-2.899	.004**
	Relevance	.144	2.317	.021
	Aesthetics	.581	9.070	.000**
	Surprise	.030	4.338	.000**
	Humor	.355	9.713	.000**
	Emotional Arousal	.048	-.719	.473
	Clarity	.015	-.378	.706
R Square		.849 (84.9%)		
Adjusted R Square		.721(72.1%)		

*Dependent Variable: Purchase Intention*

Suspecting that the same set of independent variables may lose their significant effect on purchase intention when considering independent variables all together, taking this into the consideration, Multiple Regression was used to make the research result become more rigid. Therefore, the results of multiple regressions are reported in Table 6.

The result of regressions analysis showed that R Square is 0.849, indicating that all independent variables in the table, which are novelty, relevance, aesthetics, surprise, humor, emotional arousal, and clarity can predict 84.9% of the dependent variable namely purchase intention. Hypothesis 2( $p=.021$ ), 6 ( $p=.473$ ), and 7 ( $p=.706$ ) failed to reject the null hypothesis, which suggests that there is no relationship between the independent variables (relevance, emotional arousal, and clarity) and the dependent variable (purchase intention).

Hypotheses 1, 3, 4 and 5 predicted relationships between novelty, aesthetics, surprise, humor and purchase intention. The result strongly confirmed that these

independent variables were positively and significantly associated ( $p_1=.004$ ,  $p_3=.000$ ,  $p_4=.000$ ,  $p_5=.000$ ). Therefore Hypotheses 1, 3, 4, 5 were statistically supported.

However, after performing the multiple regression analysis, it yielded opposite results from the Ordinary Least Squares Regression. It could be interpreted that variables which strongly explain the dependent variable can make variables that weakly explain the independent variable become less significant or even no longer significant. In this sense, novelty, aesthetics, surprise, and humor reflected a strong impact on purchase intention so that other independent variables (relevance, emotional arousal, and clarity) were weakened, and were not statistically supported ( $p > 0.05$ ).

## Discussion and conclusion

This study aims to investigate the impact of Guerrilla Marketing on the purchase intention of Gen Y in Thailand. The key independent and dependent variables were suggested by the literature review

based on Dinh and Mai (2016) about factors affecting the purchase intention of Gen Y in Vietnam. However, the research results were contradictory. Several explanations of this study are discussed and summarized in the following section.

Regarding the findings from the multiple regression analysis, some of the independent variables (novelty, aesthetics, surprise and humor) demonstrated significant relationships with purchase intention. The contributions from this study are believed to be beneficial for both academia and marketing practitioners. The results and findings from the analysis provide further understanding about the factors affecting consumers' purchase intention through guerilla marketing campaigns. From the managerial point of view, it is strongly recommended to use "novelty, aesthetics, surprise and humor" in guerilla marketing, which has significant impacts on purchase intention, especially in the early stage of advertisement to attract customer attention. However, the use of guerilla marketing may include risk, bias and unfavorable consumer reactions towards advertisements in the future (Ay, Aytakin, & Nardali, 2010). Therefore, it must be used cautiously in advertising especially when culture contexts are diverse.

In terms of managerial implications, aesthetics had the greatest impact on purchase intention. It should be taken into an account when guerilla marketing-related activities are used. The aesthetics of the message must be delivered to the audience so that consumer behavior will be changed favorably. Regarding novelty,

novelty and creativity are important to draw consumers' attention. Therefore, firms and advertising agencies should find creative ways of communication in order to interact effectively with target audiences. Otherwise, customers may not pay full attention and interest to the given guerilla marketing and results may be different. As expected, surprise and humor (as the main differentiators between traditional marketing and guerrilla marketing) had significant relationships with purchase intention. However, humorous advertising is quite sensitive especially when used in foreign markets since consumer possess different humor appreciation mainly based on their home country culture, individual personality and experiences. As far as guerilla marketing context is involved, priority should be given to novelty, aesthetics, surprise and humor as they are positive re-inforcers.

Switching perspective from a marketer's to a customer's point of view, customers are now looking for something different that can evoke their emotions. Guerilla marketing provides such opportunities for firms to bridge this gap. It is, therefore, highly recommended for business practitioners to have a good combination of traditional marketing and unconventional marketing. In so doing, a firm can be distinct from its rivals especially in terms of consumers' actual purchases.

Despite the findings, this study has few limitations. Firstly, understanding about guerilla marketing is still limited since it is a new concept, so it lacks a clear definition. Secondly, most research and studies in recent

years focused on separate components of guerilla marketing, but not on a holistic picture. Consequently, there is a lack of a standardized scale to measure the constructs and concept, so an extensive review of guerilla marketing concepts and theories is recommended.

For further research, cultural dimensions should be taken into consideration. Researchers may find different results in different nations. This would be highly beneficial as far as international trade and foreign markets are concerned. Regarding

the type of product used in the questionnaire, researchers could be more specific in terms of the types of product (high vs. low involvement; consumer goods vs. unsought goods). It would allow the researcher to obtain a better understanding of the effects of guerilla marketing on consumer behavior. Other dependent variables (for example; brand attitude, brand awareness brand loyalty, and consumer purchase behavior) should be studied so that the effects of guerilla marketing can be further investigated.

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## APPENDIX A: Questionnaire

Dear, Participant

Please look at pictures provided and respond to the questions accordingly.

Thank you





Part 1: The following statements concern your perception about the given ads. Your task is to indicate the strength of your agreement with each statement. Take your time and consider each statement carefully.

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
This ad is unique.						
This ad is full of imagination.						
This ad is original.						
This ad is fresh.						
This ad enables the product to be differentiated.						

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
This ad contains some good ideas.						
This ad is interesting.						
This ad has deep meaning.						

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
This ad is developed with care.						
This ad is beautiful.						
This ad is artistic.						
This ad is well designed.						
This ad is fascinating.						

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
I was amazed the first time I saw this ad.						
This ad is surprising.						
This ad makes me startled.						
This ad is unexpected.						

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
This ad is playful.						
This ad is funny.						
This ad is humorous.						



	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
This ad makes me feel aroused.						
This ad makes me feel wide-awake.						
This ad makes me feel frenzied.						

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
I understood the ad very well.						
I can quickly understand the ad message.						
It's easy to understand the ad message.						
I found the message very clear.						

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
I will consider buying a product.						
If there are any chances, I am certain to buy a product.						
I will look for more information about a product.						



## Part 2: Demographic Information

Gender: ☐ Male ☐ Female

1. Age: \_\_\_\_\_
2. Highest level of education completion
  - ☐ High school (or equivalent)
  - ☐ Bachelor degree (or equivalent)
  - ☐ Master degree (or equivalent)
  - ☐ Other (Please specify: \_\_\_\_\_)
4. Frequency of advertising exposure (per week)
  - ☐ Over 7 ads (Very much)
  - ☐ From 5 to 7 ads (Fairly much)
  - ☐ From 3 to 4 ads (Moderate)
  - ☐ From 1 to 2 ads (A little)
  - ☐ 0 ads (No exposure)



# ASEAN market integration: the impact on capital flow and cost of capital

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## Abstract

The purpose of this research is as follows: 1) to analyze and compare the impact of the Stock Exchange of Thailand Index (SET Index) on the capital flow and cost of capital before and after the ASEAN market integration; 2) to study the relationship between the SET Index and the indices of the ASEAN stock exchanges before and after the ASEAN market integration; and 3) to study the relationship between the SET Index and the index of the MSCI World and the index of the Tokyo Stock Exchange before and after the ASEAN market integration in the form of time series data. The results of the data analysis by Vector Auto Regression and Vector Error Correction Model showed that the SET Index could significantly explain the change in capital flow and cost of capital. In contrast, the integration of the ASEAN stock exchanges was not found to affect the ability to explain the change of capital flow or the cost of capital. The finding concerning the relationship between the SET Index and the other ASEAN indices (including the MSCI World Index and the Tokyo Stock Index) showed that after the ASEAN market integration, the SET Index was able to explain the change of every index in the region when compared to the change in the period before the ASEAN market integration.

**Keywords:** stock market integration, SET Index, ASEAN Index,  
cost of capital, capital flow



## Introduction

Presently, the global economic systems are highly interconnected and volatile. Capital flows from investors all over the world in order to seek suitable returns. Investment in the stock market is one of the options that investors from all over the world are interested in. However, when focusing on the Stock Exchange of Thailand, it shows the value of 2% on the ASIA stock exchange (excluded Japan stock market) with a total value of 4<sup>th</sup> rank in ASEAN and 28<sup>th</sup> rank on the World Federation of Exchanges (WFE). However, focusing on large and highly-liquid securities, it has been found that the Stock Exchange of Thailand is second ranked after Singapore (the Stock Exchange of Thailand, 2012). In addition, collaboration will make the ASEAN Stock Exchange become 8<sup>th</sup> according to the WFE in value.

There have existed recently mergers or market integration in different regions of the world. For example, in 2006 the NYSE merged with Euronext, which was a "merger of equals". Cooperation among stock markets in the Nordic-Baltic Region (NOREX Alliance) on the development of a connection system for stock exchanges resulted in more effective securities trading. Each stock exchange revised its trading and subscription criteria for consistency. Further, collaboration amongst the Santiago (Chile), Lima (Peru), and Bogota (Columbia) stock exchanges created an Integrated Latin American Market (MILA) in 2010 so as to connect their trading systems. Later, by the end of 2011, the Mexican stock market announced joining the MILA. The stock exchanges in the BRICS countries worked together on cross-listing derivatives in 2011 in order to use the equity index reference. That was scheduled to trade in June 2012. Furthermore, in 2014, the European Commission launched the

Capital Markets Union (CMU), which aimed to integrate all Europe's capital markets into the single market by 2019, which would enhance the capital mobilization in European Union.

Three stock exchanges have begun their pilot ASEAN market integration, namely Malaysian, Singapore, and Thailand. Trading through the ASEAN link, which connected the transactions among the exchanges set to begin in the third quarter of 2012. Furthermore, In 2016 the ASEAN Exchanges collaboration ushered in the introduction of the ASEAN 5 FTSE4Good ESG Index and new MSCI ASEAN centric indices

In addition, the ASEAN market integration also has helped to minimize the volatility of the returns in the stock markets in developing countries, which are usually more fluctuating than the volatility of the global markets. This has helped to normalize higher expected returns in the stock markets in the developed countries. This is in line with Errunza's 2001 findings—that the cost of capital or expected returns in integrated markets is lower than those in unintegrated ones. Furthermore, Arshanapalli et al. (1995) and Masih and Masih (1997, 1999, 2001) found the evidence of cointegration among the emerging and developed countries. In addition, Coffee 2002 and Stulz (1999) and Karolyi (2006) noticed that cross-listing improves the visibility and domestic market opening to foreign investors, Cavoli, McIver, and Nowland (2011) found that cross-listing contributed to a higher chance of securities purchasing, and Janakiraman and Lamba (1998) revealed that return on investment in the US stock exchange affects the stock markets in the Asia-Pacific region (Australia, Hong Kong, Japan, New Zealand, Singapore, Indonesia, Malaysia, and Thailand). Aloui (2014) found that the

co-movement and dependence among Gulf Cooperation Council (GCC) Countries (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates) stock markets was increased and it may impact to the multi-country portfolio's value at risk levels.

Errunza (2001) summarized that market integration causes an increase of the cost of capital. Bekaert and Harvey (2000), Henry (2000), Kim and Singal (2000), together with Edison and Warnock (2003), found that market integration results in a decrease in the rate of the dividend yield with statistical significance. During the periods of pre- and post-liberalization, Bekaert and Harvey (2003) concluded that expected returns or the cost of capital would fall but only in the market integration of developed nations. Errunza and Miller (2000) studied a sample of 32 countries and found that market integration reduces the cost of capital with statistical significance. Lins, Strickland, and Zenner (2005) concluded that market integration renders a significant drop in the cost of capital.

Tesar and Werner (1994) along with Brennan and Cao (1997) concluded that inflows or outflows of capital between countries affect the rise or fall of share prices. Clark and Berko (1997), as well as Froot, O'Connell, and Seasholes (2001), found that after the inflow of capital, share prices rise. Bekaert, Harvey, and Lumsdaine (2002) summarized that market integration results in an increase of capital flows; and after market integration, the dividend yield would be shrunk and the cost of capital would permanently fall. Edison and Warnock (2003) maintained that investors would invest more in other stock markets excluding investments in cross-listed firms. Chari and Henry (2001), Patro and Wald (2005), Lins et al. (2005), Errunza and Miller (2000), and Karolyi

(1998) also advocated that financial liberalization results in a lower cost of capital or expected return on securities in stock markets. This may encourage more global private investments and capital flow.

Therefore, it is imperative to study the impacts caused by the Stock Exchange of Thailand's association with the ASEAN exchanges regarding capital flow and the cost of capital, the direction of changes, as well as the volatility of the Stock Exchange of Thailand compared with other ASEAN stock exchanges and major global market.

## Research Objectives

1. To analyze and compare the impact of the Stock Exchange of Thailand Index (SET Index) on the capital flow and cost of capital before and after the ASEAN market integration
2. To study the relationship between the SET Index and the indices of the ASEAN stock exchanges before and after ASEAN market integration
3. To study the relationship between the SET Index and the index of the MSCI World and the index of the Tokyo Stock Exchange before and after ASEAN market integration.

## Research Methodology

This research is quantitative. Secondary data were collected and analyzed. The data were public, including the stock indices of the ASEAN stock exchanges and other leading stock exchanges of WFE.

The samples in this study are the stock exchanges in ASEAN that participate in financial liberalization, both stock exchanges with an ASEAN Trade Link in 2012, including the Stock Exchange of Thailand (SET), Singapore Exchange Limited (SGX), and Bursa Malaysia (BM),

and the stock exchanges that did not participate in the ASEAN trade link in 2012, including the Vietnam Ho Chi Minh Stock Index (VNI), the Indonesia Stock Exchange (IDX), and the Philippine Stock Exchange (PSE). Moreover, the study also includes world-leading stock exchanges, for example the MSCI World Index World, which is a representative stock exchange in 23 developed countries, stock exchanges in the USA, and the Tokyo Stock Exchange (TSE).

The samples of leading stock exchanges were selected by using purposive sampling, including the MSCI World Index, the Tokyo Stock Exchange, and the Stock Exchanges in USA, while, the samples for the study of effect on the capital flow and the cost of capital came from the SET Index were the capital flow and the cost of capital of the Stock Exchange of Thailand.

Data collection was performed by collecting data on a daily basis from the following sources.

**Stock exchange index data** were gathered from daily index published through Datastream by Thomson Reuters. Two phases of data collection were for example, phase 1: the period of 5 years prior to entering the ASEAN Exchanges by the Stock Exchange of Thailand (October 15, 2007-October 14, 2012). Phase 2 was the period that covered 3 years 11 months after joining the ASEAN Exchanges by the Stock Exchange of Thailand (October 15, 2012-August 31, 2016).

**The Thailand MSCI daily total return index (MSCI DTR TH) data and foreign portfolio investment (FPI) data** for the study of cost of capital and capital flow were collected from published databases via Datastream by Thomson Reuters and databases from website: [www.ceicdata.com](http://www.ceicdata.com), respectively. Data collection included 2 phases. Phase 1

encompassed the period of 5 years before the Stock Exchange of Thailand joining the ASEAN Exchanges (October 15, 2007-October 14, 2012). Phase 2 corresponded to 3 years and 11 months period following the ASEAN Exchanges integration by the Stock Exchange of Thailand (October 15, 2012-August 31, 2016).

**Data Analysis:** In conducting this research, the author converted the variables into the form of a natural logarithm and performed data analysis using the following steps.

**1. Unit Root Analysis** was carried out. Given that this study involved time series data, the variables normally correlated in the same direction. A test of stationary of data was also required according to the assumption that mean, variance, and covariance do not change with time. The Augmented Dickey-Fuller (ADF) test was executed since it is acceptable and popular in the study of time series data.

A stationary test of variables was conducted for the order of integration equivalent to 0 or I (0) or at level. In the event that non-stationary variables are at the confidence levels of 90, 95, and 99 percent due to the statistics being over the critical value, additional data tests must be performed for the order of integration equal to 1 or I (1) or first difference in order to find out the stationary of the analyzed variables. The results were employed for co-integration analysis in the next step.

**2. Co-Integration Analysis** was employed for the hypothesis test in order to find the correlation among, first, the SET Index, the ASEAN Stock Exchanges Indexes, the MSCI World Index, and the Tokyo Stock Exchange Index. Additionally, the correlation was sought between the SET Index and the cost of capital as well as the SET Index and capital flow to examine if there was any co-integration. The study period was divided into 2 phases: pre- and post- ASEAN market integration. The

reason for using co-integration analysis was due to the nature of time series data and consideration on a stationary in this research. Co-integration analysis using Johansen's method therefore was more appropriate than correlation analysis. Co-

integration analysis was used on multiple variables in the form of an equation. Since the variables in this study contained 9 stock exchange indexes, they could be analyzed for correlation concurrently through the following principal statistics.

### Trance Test

$$\lambda_{trace}(r) = -T \sum_{i=r+1}^n \ln(1 - \hat{\lambda}_i); r=0, 1, \dots, n-1$$

Where;

H0: $r = 0$	against	$H_1 : r > 0$
H0: $r \leq 1$	against	$H_1 : r > 1$ up until
H0: $r \geq n$	against	$H_1 : r > n$

### Maximum Eigenvalue

$$\lambda_{max}(r, r + 1) = -T \ln(1 - \hat{\lambda}_{r+1}); r=0, 1, \dots, n-1$$

Where;

H0: $r = 0$	against	$H_1 : r \geq 1$
H0: $r = 1$	against	$H_1 : r \geq 2$
H0: $\text{rank}(\Pi) = r$	against	$H_1 : \text{rank}(\Pi) \geq r+1$

**3. Vector Auto Regressive (VAR)** was analyzed to forecast the effect of the SET Index on capital flow and the cost of capital. The two phases of the study were the pre- and post-ASEAN market integration periods according to the researcher's calculation.

VAR is a popular model used in the study of time series with data in the past or lagged variables. One past variable was considered for its effect on current variables. The stationary of the variable was checked before testing in order to

avoid a spurious relationship problem. The results could then be analyzed. The VAR model can be used to study and explain the casual relationship of variables. Studies by Sims (1980) and Litterman (1979) indicated that unlike others, forecasting using a VAR model can show the relationships among endogenous variables. In addition, the VAR model can also be used on multivariate time-series data that simultaneously consider several endogenous variables within a single equation. The following is the unrestricted VAR: VAR (p) equation.

$$y_t = v + A_1 y_{t-1} + A_2 y_{t-2} + \dots + A_p y_{t-p} + \epsilon_t$$

**4. The Vector Error Correction Model (VECM)** was used to forecast the short-term adjustment in order to arrive at the co-integration of the SET Index on capital flow and the cost of capital. Pre- and post-ASEAN Market Integration were the 2 phases of this analysis.

VECM is regarded as a restricted VAR model commonly used to study the co-integration of time series variables. An adjustment model for co-integration must be considered when the short term adjustment of each variable occurs. The following is the equation.

$$\Delta y_t = v + \Pi y_{t-1} + \sum_{i=1}^{p-1} \Gamma_i \Delta y_{t-i} + \epsilon_t$$

Where

$$\Pi = \sum_{j=1}^{j=p} A_j - I_k, \text{ and } \Gamma_i = \sum_{j=i+1}^{j=p} A_j$$

And

$$y_t = K \times 1 \text{ Vector of Variable}$$

$$v = K \times 1 \text{ Vector of Parameter}$$

$$\epsilon_t = K \times 1 \text{ Vector Disturbance}$$

The VEC model when integrated with constant and linear trend can be:

$$\Delta y_t = \alpha(\beta' y_{t-1} + \mu + \rho t) + \sum_{i=1}^{p-1} \Gamma_i \Delta y_{t-i} + \gamma + \tau t + \epsilon_t$$

Where

$$\mu, \rho = r \times 1 \text{ Vector of Parameter}$$

$$\gamma, \tau = K \times 1 \text{ Vector of Parameter}$$

## Research Result

### Unit Root Test Results

The study of the impact on capital flow and cost of capital, the results of the unit root analysis of the SET Index, the cost of capital and the capital flow showed that only the capital flow time series data with a stationary at the confidence level of 99% because the statistics were over the critical value (ADF test). The stationary model was

a pure random walk with a drift and linear time trend.

The SET Index and the cost of capital showed time series data with a stationary at the confidence level of 99% at an integrated of order 1 because the statistics were over the critical value (ADF test). The stationary model was a pure random walk.

In the correlation study of the time series data of 9 market indices, the results of the unit root analysis of the 9 market indices data indicated that only the Vietnam Ho

Chi Minh Stock Index (VNi) showed time series data with a stationary at the confidence level of 99% because the statistics were over the critical value (ADF test). The stationary model was a pure random walk with a drift and linear time trend.

While the indices of 8 markets, consist of, 1) the Stock the Exchange of Thailand Index (SETi), 2) the MSCI World Index, 3) the S&P

500 Index, 4) the Tokyo Stock Price Index (TOPIX), 5) the Philippines Stock Exchange Index (PSEi), 6) the Strait Times Index (STi), 7) the Kuala Lumpur Composite Index (FBM KLCi), and 8) the Jakarta Stock Exchange Composite Index (JCI), showed time series data with a stationary at the confidence level of 99% at an integrated of order 1 because the statistics were over the critical value (ADF test). The stationary model was a pure random walk.

## Results of vector auto regression and vector error correction between SET Index, capital flow, and between SET Index cost of capital

### Analysis of the relationships between the SET Index and capital flow

$$\begin{aligned} \text{LnFPI\_Inflow} &= 0.353697 + 0.53337 (\text{LnFPI\_Inflow}_{t-1})^* + 0.082533 \\ &(\text{LnMSCI\_DRT\_TH}_{t-1}) + 0.459123 (\text{LnSET}_{t-1})^* + 0.02942 (\text{Dummy}) \\ &\quad (4.1 \text{ VAR}) \end{aligned}$$

$$\begin{aligned} \Delta \text{LnFPI\_Inflow}_t &= -0.33519 - 1.211414(\Delta \text{LnSET}_t) \\ &\quad (4.2 \text{ Co-integration}) \end{aligned}$$

$$\begin{aligned} \Delta \text{FPI\_Inflow}_t &= -0.007285 - 0.113747 \Delta (\text{LnFPI\_Inflow}_{t-1}) + 1.012836 \Delta \\ &(\text{LnMSCI\_DRT\_TH}_{t-1}) + 0.761133 \Delta (\text{LnSET}_{t-1}) - 0.016222 (\text{Dummy}_t) - \\ &0.424276 \varepsilon_t \quad (4.3 \text{ VECM}) \end{aligned}$$

With regard to co-integration analysis, in the long run, there is a significantly-negative correlation between the SET Index and the capital flow invested in the portfolio. In other words, a 1% increase in the Thailand Stock Exchange index leads to a considerable decrease in the cost of funds invested in the portfolio by 1.211414%, on average, *ceteris paribus* (Equation 4.2). In addition, the vector error correction analysis showed that, in the short run, if the capital flow diverts from its

long-run equilibrium, it will return to such equilibrium, at a 0.424276 speed of adjustment per period (Equation 4.3).

However, the collaboration of ASEAN market integration had no impact on the cost of capital because the co-efficiency of the DUMMY variable, which represented the period of ASEAN market integration, had no significance in the explanation of the capital flow (Equation 4.1).



### Analysis of the relationships between SET Index and cost of capital

$$\text{LnMSCI\_DRT\_TH} = 0.033803 + 1.011826 (\text{LnMSCI\_DRT\_TH}-1)^* + 0.002129 (\text{Ln\_FPI\_Inflow}-1)^* - 0.018633 (\text{LnSET}-1)^* + 0.002317 (\text{Dummy})$$

(4.4 VAR)

$$\Delta \text{LnMSCI\_DRT\_TH} = 2.116916 - 1.244967(\Delta \text{LnSET}_t)$$

(4.5 Co-integration)

$$\begin{aligned} \Delta \text{LnMSCI\_DRT\_TH}_t &= -0.000103 - 0.134613 \Delta (\text{LnMSCI\_DRT\_TH}_{t-1}) - 0.001378 \Delta (\text{LnFPI\_Inflow}_{t-1}) - 0.134607 \Delta (\text{LnSET}_{t-1}) + 0.000903 \\ &\quad (\text{Dummy}_t) + 0.014887 \epsilon_t \end{aligned}$$

(4.6 VECM)

With regard to co-integration analysis, in the long run, there is a significant negative correlation between the SET Index and the cost of capital invested in the portfolio. In other words, a 1% increase in the Thailand Stock Exchange index leads to considerable decrease in cost of funds invested in the portfolio by 1.244967% on average, *ceteris paribus* (Equation 4.5). In addition, the vector error correction analysis showed that, in the short run, if the cost of capital diverts from its long run equilibrium, it will return such equilibrium, at a 0.0148872 speed of adjustment per period (Equation 4.6).

However, the collaboration of ASEAN market integration had no impact on the cost of capital because the co-efficiency of the DUMMY variable had no significance in the explanation of the cost of capital (Equation 4.4).

### Result of vector auto regression and vector error correction between SET Index and other Indices

#### Pre-ASEAN Market Integration

The analysis of the optimal lag length was determined by using different criteria, comprised of the Akaike Information Criterion (AIC) and Schwarz Information (SC), and the results showed that the optimal lag length for this study was 2.

In order to determine number of co-integration vectors, Johansen's method provides two different likelihood ratio tests, the trace test and the maximum eigenvalue test. The results showed that 4 sets of relationships ( $r=3$ ) failed to reject the null hypothesis of no co-integration between the indices because the tests were less than significant at 0.05 as seen in Table 1.

**Table 1** Test results of the long-term relationship between SET Index and other indices

	Trace	Max-Eigen	Critical Value (5%)		Prob.	
	Statistic	Statistic	Trace	Max-Eigen	Trace	Max-Eigen
<b>r=0</b>	865.3216*	699.2454*	159.5297	52.36261	0	0.0001
<b>r=1</b>	166.0762*	49.35652	125.6154	46.23142	0	0.0225
<b>r=2</b>	116.7196*	39.83771	95.75366	40.07757	0.0009	0.0532
<b>r=3</b>	76.88192*	30.31635	69.81889	33.87687	0.0122	0.1256



## Vector auto regression and vector error correction analysis between the SET Index and other indices.

$$\begin{aligned} \text{LN\_SET\_PRE} = & -0.151532 + 0.896969\text{LN\_SET\_PRE}(-1)^* + 0.044215\text{LN\_SET\_PRE}(-2) + \\ & 0.084281\text{LN\_SP500\_PRE}(-1) - 0.057298\text{LN\_SP500\_PRE}(-2) - \\ & 0.039856\text{LN\_TOPIX\_PRE}(-1) + 0.033782\text{LN\_TOPIX\_PRE}(-2) + \\ & 0.039141\text{LN\_JCI\_PRE}(-1) - 0.017947\text{LN\_JCI\_PRE}(-2) - \\ & 0.108172\text{LN\_STI\_PRE}(-1)^* + 0.115663\text{LN\_STI\_PRE}(-2)^* + \\ & 0.052876\text{LN\_KLCI\_PRE}(-1) - 0.040996\text{LN\_KLCI\_PRE}(-2) + \\ & 0.109382\text{LN\_PSEI\_PRE}(-1)^* - 0.098175\text{LN\_PSEI\_PRE}(-2)^* + \\ & 0.036802\text{LN\_VNI\_PRE}(-1)^* - 0.043735\text{LN\_VNI\_PRE}(-2)^* + \\ & 0.42111\text{LN\_MSCI\_PRE}^* - 0.207212\text{LN\_MSCI\_PRE}(-1)^* - \\ & 0.20886\text{LN\_MSCI\_PRE}(-2)^* \end{aligned}$$

(4.7 VAR)

Equation 4.7 signified that at time t-1 the Philippines Stock Exchange Index (PSEi) could explain the SET Index movement at time t in a positive direction. while the MSCI World Index and the Strait Times Index (STi) at time t-1 could explain the SET Index movement at time t in a negative direction.

Moreover, at time t-2 the Strait Times Index (STi) could explain the SET Index movement at time t in a positive direction. while the Philippines Stock Exchange Index (PSEi), the Vietnam Ho Chi Minh Stock Index (VNi), and the MSCI World Index could explain the SET Index movement at time t in a negative direction.

From an analysis of the SET Index and other stock exchanges' indices before ASEAN Market Integration it can be concluded that the ASEAN Stock Exchange before the integration indicated that among the Strait Times Index (STi), the

Philippines Stock Exchange Index (PSEi), the Vietnam Ho Chi Minh Stock Index (VNi), and the MSCI World Index, in explaining the SET Index movement at time t-1, only the Philippines Stock Exchange Index (PSEi) could explain the SET Index movement in a positive direction, while the rest could explain it in a negative direction. Moreover, at time t-2 only the Strait Times Index (STi) could explain the SET Index movement in a positive direction, while the rest could explain it in the negative direction.

However, the SET Index could explain the movements of the Strait Times Index (STi) and the Tokyo Stock Price Index (TOPIX) only.

The vector error correction results before the ASEAN market integration can be concluded as follows:

**Table 2** Results of vector error correction before ASEAN market integration

Indices	Co-integration	Speed of adjustment
LN_SET_PRE	✓	0.04392
LN_SP500_PRE	✓	0.0149
LN_TOPIX_PRE	✓	0.01709
LN_JCI_PRE	✓	0.02759
LN_STI_PRE	X	-
LN_KLCI_PRE	X	-
LN_PSEI_PRE	X	-
LN_VNI_PRE	X	-

Table 2 shows that prior to the ASEAN Market Integration, the SET Index, S&P 500, the Tokyo Stock Price Index (TOPIX), and the Jakarta Stock Exchange Composite Index (JCI) were out of co-integration, while they rebounded to co-integration at a velocity of 0.04392, 0.0149, 0.01709, and 0.2759 per period, respectively. In other words, that was the speed of adjustment to co-integration in the short term.

**Post-ASEAN Market Integration**  
The analysis of the optimal lag length was

determined by using different criteria, comprised of the Akaike Information Criterion (AIC) and Schwarz Information (SC), and the results showed that the optimal lag length for this study was 1.

The results of Johansen's method showed that 2 sets of relationships ( $r=1$ ) failed to reject the null hypothesis of no co-integration between the indices because the tests were less than significant at 0.05 as seen in Table 3.

**Table 3** Test of long-term relationships between SET Index and other indices

	Trace	Max-Eigen	Critical Value (5%)		Prob.	
	Statistic	Statistic	Trace	Max-Eigen	Trace	Max-Eigen
<b>r=0</b>	487.8527*	343.5279*	159.5297	52.36261	0	0.0001
<b>r=1</b>	144.3249*	52.9641*	125.6154	46.23142	0.0022	0.0083
<b>r=2</b>	91.36075	31.1139	95.75366	40.07757	0.0966	0.3538
<b>r=3</b>	60.24685	26.03286	69.81889	33.87687	0.2279	0.3187

**Vector auto regression and vector error correction analysis between the SET Index and other indices.**

$$\begin{aligned}
 \text{LN\_SET\_POST} = & 0.107563 - 0.003192\text{LN\_PSEI\_POST}(-1) - 0.032318\text{LN\_KLCI\_POST}(-1)^* \\
 & + 0.974222\text{LN\_SET\_POST}(-1) + 0.022036\text{LN\_JCI\_POST}(-1)^* - \\
 & 0.014417\text{LN\_SP500\_POST}(-1) - 0.00985\text{LN\_TOPIX\_POST}(-1)^* + \\
 & 0.00324\text{LN\_STI\_POST}(-1) - 0.001\text{LN\_VNI\_POST}(-1) + \\
 & 0.453204\text{LN\_MSCI\_POST} - 0.409624\text{LN\_MSCI\_POST}(-1)^* \\
 & (4.8 \text{ VAR})
 \end{aligned}$$

Equation 4.8 signified that at time t-1 the Jakarta Stock Exchange Composite Index (JCI) could explain the SET Index movement at time t in a positive direction, while the MSCI World Index, the Tokyo Stock Price Index (TOPIX), and the Kuala Lumpur Composite Index (FBM KLCi) at time t-1 could explain the SET Index movement at time t in a negative direction.

However, the SET Index could explain the movements of all the regional indices and other leading indices, with the exception of only the S&P 500 Index, which differed from the pre-ASEAN market integration and could explain the movements of two indices only, as concluded in Table 4 and 5.

**Table 4** Vector auto regression results before ASEAN market integration at t-1

Indices	Impact to SET at t-1	Sig	Impact from SET at t-1	Sig
LN_SP500_PRE(-1)	-	X	-	X
LN_TOPIX_PRE(-1)	-	X	Negative	✓
LN_JCI_PRE(-1)	-	X	-	X
LN_STI_PRE(-1)	Negative	✓	Negative	✓
LN_KLCI_PRE(-1)	-	X	-	X
LN_PSEI_PRE(-1)	Positive	✓	-	X
LN_VNI_PRE(-1)	-	X	-	X
LN_MSCI_PRE(-1)	Negative	✓	n.a.	

**Table 5** Vector auto regression results after ASEAN Market Integration at t-1

Indices	Impact to SET at t-1	Sig	Impact from SET at t-1	Sig
LN_PSEI_POST(-1)	Negative	x	Positive	✓
LN_KLCI_POST(-1)	Negative	✓	Positive	✓
LN_JCI_POST(-1)	Positive	✓	Positive	✓
LN_SP500_POST(-1)	Negative	x	Positive	✓
LN_TOPIX_POST(-1)	Negative	✓	Negative	x
LN_STI_POST(-1)	Positive	x	Positive	✓
LN_VNI_POST(-1)	Negative	x	Positive	✓
LN_MSCI_POST(-1)	Negative	✓		

The vector error correction after ASEAN market integration can be concluded as follows:

**Table 6** Vector error correction results after ASEAN Market Integration

Indices	Co-integration	Speed of adjustment
LN_SP500_PRE	X	-
LN_TOPIX_PRE	X	-
LN_JCI_PRE	X	-
LN_STI_PRE	X	-
LN_KLCI_PRE	✓	0.01469
LN_PSEI_PRE	✓	0.08453
LN_VNI_PRE	X	-

Table 6 shows that after the ASEAN Market Integration, only the Kuala Lumpur Composite Index (KLCI) and the Philippines Stock Exchange Index (PSEi) could back to the long run equilibrium, when there diverts from such equilibrium, with 0.01469 and 0.08453 speed of adjustments per period, respectively

## Discussions and Suggestions

The research findings indicated that the SET Index had an effect on capital flow. In the short run, once capital flow is diverted from its long run equilibrium, it will return to such equilibrium at a 0.424276 speed of adjustment per period. This finding is consistent with a study by Brennan and Cao (1997), which found that the changing of stock prices resulted in the inflow and outflow of capital across borders. This is because foreign investors buy assets abroad when the returns on assets there are high and sell them when the returns on assets are low. The results are also in line with the studies by Tesar and Werner (1994) and by Froot, O'Connell, and Seasholes (2001). Furthermore, fair practice of financial supervision also yielded such results. A study of a integration of stock exchanges in regions in Europe, Asia, Canada and the U.S by Wellons (1997), which was cited in Lee's (2000) work also suggested that perfect integration should result in the same securities trading price for markets with the same characteristics of return and risk levels after adjustment of currency exchange rates. This was due to capital flow being freely executed by investors in buying securities in a country with lower prices and selling them in another country with higher prices until prices in the two countries were matched.

The research findings also indicated that the SET Index had an effect on the cost of capital. In the short run, once capital flow was out of co-integration, it rebounded to co-integration at a velocity of 0.014887 per period. This is consistent with a study of

Errunza (2001) that found market integration significantly reduced the cost of capital. Such a notion was also echoed by Bekaert and Harvey (2000), Henry (2000), Kim and Singal (2000); Edison and Warnock (2003), Errunza and Miller (2000), and Lins, Strickland, and Zenner (2005).

In addition, the research findings also suggested that pre- and post-ASEAN Market Integration had no effect on capital flow or the cost of capital. The reason was probably due to the fact that emerging markets did not benefit from investors' extensive trading. Because investments in multinational companies did not increase despite being affected, it bore no effect in domestic companies (Edison and Warnock, 2003). The ASEAN Market Integration might affect the SET Index only in the short term. This is in accordance with studies by Errunza (2001) as well as Claessens, Dooley and Werner (1995). They indicated that normally Market Integration and Money Market Integration only affects the short-term volatility of returns on securities, which is often caused by an inflow of capital. Moreover, Bekaert et al. (2002) found out that market integration and capital flow were positively correlated with a statistical significance. Further, the reduction of the dividend yield led to a permanent decrease in the cost of capital but only in the short term. This rendered the cost of capital in pre- and post-ASEAN Market Integration unchanged with a statistical significance.

The findings on the relationship between the SET Index and other market indices indicated that comparisons of the MSCI World Index, the S&P 500 Index, the Tokyo Stock Price Index (TOPIX), the Strait Times

Index (STI), and the Vietnam Ho Chi Minh Stock Index (VNI) pre- and post-ASEAN Market Integration yielded post integration market indices, including those already mentioned and those of other regional and most global leading indices, effect on the SET Index. Co-integration between the SET Index and other indices was also found. However, the co-integration among the indices tended to decrease. This is consistent with research by Bekaert, Havey, and Lundblad (2007), which revealed that, in the developing countries, the market integration did not affect the volatility of the expected return and such volatility did not affect economic growth, which is in conformance with, Wong, Penm, Terrell, and Lim (2004), who discovered that the SET Index had no correlation coefficient with the markets in the US, Japan, or the UK during the some periods. This probably was the result of the relationship between the market indices in the developing and developed countries being able to fluctuate at any time depending upon economic relationships, related rules and regulations, and foreign exchange and inter-trade. Phylaktis and Ravazzolo (2002) also found that economic cooperation affected the correlation and co-movement of market indices.

The findings on the relationship between the SET Index and the indices in ASEAN suggested that they were correlated. This idea was repeated by Chintrakarn and Komonrat (2010), who uncovered that the daily price indices of regional markets as well as world leading markets were correlated and usually moved in the same direction. Similarly, such a correlation was found to be likely to rise. Particularly after the ASEAN Market Integration, the SET Index could explain all regional indices movements

## Suggestions

Based on the findings above, the effects that change of the SET Index have over capital flow, which represents transactions on the Stock Exchange of Thailand, should be brought into consideration by the Stock Exchange and the Bank of Thailand when they set a policy. The details are as follows: 1) policy to monitor and control net capital flow from the transactions in the SET to be able to maintain exchange rate stability; 2) public offering in the stock exchange of other countries with the collaboration of ASEAN stock exchanges, and 3) policy to promote the collaboration of the stock exchanges in the region. The exchange rate stability should be maintained with the coordination between involved parties to monitor and control the capital inflows and outflows from foreign investment. This should be done in the case of absolute necessity. Regarding public offering, the findings clearly indicated that the indices of the stock exchanges in the region were related to each other in the same direction. Therefore, competitiveness should be promoted in the private sector and the market should be extended to other ASEAN countries in order to reduce foreign exchange risks and to promote a good image of companies registered in Thailand, as well as to strengthen ASEAN stock exchanges. Regarding policy to promote the collaboration of the stock exchanges in the region, based on above-mentioned findings, they clearly indicate that after the ASEAN Market Integration the stock exchanges in the region became associated to each other. One index can also explain the movement in the other indices in the region significantly. The authority involved in regulating and developing the stock exchange in member countries should therefore focus on providing co-operation in order to enhance the linkages between the countries and in order to stabilize the market and to increase attractiveness for investors both inside and outside the region.

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# Aspects of learning performance as a cross-functional team in a Kaizen-led working environment

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## Abstract

Kaizen events take flight when there is a dedicated cross-functional team that is focused on ways to improve a targeted work area, with specific goals, in an accelerated timeframe. This study provides an outline for management in developing the factors that will enable a cross-functional team to establish a learning performance in the midst of a kaizen event. A case study was conducted on a company that has already incorporated the kaizen concept and then a theoretical analysis was done to provide the factors that support the learning performance as a cross-functional team. The study asserts that learning as a cross-functional team in a kaizen-led working environment can only be performed effectively when there is a proper circulation that calls for action, team members being able to enact their supporting role, and the structure fashioning a working system that enables the team to achieve its assignment. A proper framework is also essential.

**Keywords:** Change, Continuous Improvement, Cross-Functional Team, Kaizen, Learning.

## Introduction

In a Kaizen led working environment, management needs to obtain a collective approach on finding and searching for better methods in sustaining continuous improvement which can only take its course if the appointed system within the organization provides the supporting foundation to do so. On the practical side of management, the conditions that allow this unique operational philosophy to exist are depended upon the positive morale, satisfaction, and collaborative behavior of the participating individuals (Glover et al., 2013) who are committed to this working style, as well as for management to constantly orchestrate around the dynamics in the workplace to produce results that are high in gratitude and compensates for the workers' tiring efforts (Magnier-Watanabe, 2011). Therefore, management needs to understand that kaizen events take flight when there is a dedicated cross-functional team that is focused on ways to improve a targeted work area, with specific goals, in an accelerated timeframe (Farris et al., 2008). Because for management, such a team is asked to make sure that they are gathering real data, fact, or information so that there is a strong level of assurance to decide for the next action plan that brings about greater gain without disrupting other operational processes that depend on the resources to complete the assignments (Saleeshya, Raghuram, and Vamsi, 2012).

Kaizen is an approach for business excellence thus requiring workers' to apply their skills, knowledge, and abilities as a unit to improve and support the working standards and operation for the organization to maintain sustainability (Macpherson et. al., 2015). In order for kaizen to be truly implemented it requires the cooperation and collaboration of all sectors involved to be aligned with the

principle and beliefs for aiming maximum efficiency, the practice is an ongoing process that should never be taken granted (Smith et. al., 2009). The true advantage of kaizen is bestowed in its precepts on designing the ways for participants to make the critical feedback as a collective group from the data and information that have been gathered in the working process so that the next step of action can be decided upon by top management with confidence (Smith, Nachtmann and Pohl, 2010). There must be a reliance on people to work as a team and promote learning with each other as kaizen involves an intricate complex web of variables that can provide valuable information for making progress and knowing which critical points can be solved or examined for further understanding (Haun, Mothersell and Motwani, 2015). The mission of the team in carrying out the kaizen activities can only go so far as the level of commitment that is being poured into from the powers and authority of the management structure within the organization, it would be a waste of time and energy if management has an unsteady commitment in promoting kaizen (Liu et. al., 2015).

This work attempts to provide management a demonstration on the factors that can create the working conditions for a cross-functional team to learn as a cohesive entity. To illustrate this idea the author emphasizes on the structure that establishes the movement, outline, and moral support for permitting the team to not only perform as a cross-functional unit but as individual participants who want to explore, raise questions, conduct examination out of curiosity, and seek for changes to help others learn. In the business of finding continuous improvement, management needs to maintain a system that does not rely on investments, but on the

improvement of the processes and the employees' performance (Titu, Oprean, and Grucel, 2010) so that the decisions and actions fortify the intentions, whereas kaizen is the influential working culture. In addition, the policies and procedures set forth should not be constituted as the consequences for workers who do not conform but to be encouraged to increment their knowledge and abilities in being opportunistic, creative, and innovative in the methods of workplace development (Oki, 2012). The approach in learning as a cross-functional team in a kaizen event is dependent on each member being accountable for promoting self-discipline, managing time, skill development, taking part in participation and involvement, displaying morale, and providing communication so that there is no disruption when the focus is on finding an ideal solution (Strategic Direction, 2004). The aim of this study is to provide an outline for developing the factors that will enable a cross-functional team to establish a learning performance in the midst of a kaizen event. Such a concept could bring a better understanding for team managers/leaders or human resource management to design and coordinate the workplace for individuals to collectively operate in a cross-functional disciplinary manner. In addition, it can also provide an in-depth perspective for arranging the conditions for team learning to be in a better position to enhance continuous improvement.

The idea of this work is to illustrate the aspects that support the learning performance for a cross-functional team in a kaizen-led working environment. The study contributes in developing a practical framework that can be applied for team managers or human resource management to configure and organize a design that would strengthen the working philosophy of continuous improvement.

The paper attempts to achieve this aim by first providing a case study of a company that has already incorporated the kaizen concept and then offering a theoretical analysis for the factors that support the learning performance as a cross-functional team. Upon delivering the ideal frame the following research questions have been raised for analysis:

- 1. How should the aspects support a learning environment in the workplace for a cross-functional team?*
- 2. How does a cross-functional team perform in learning during the kaizen activities?*
- 3. Why should the structural role of the organization support the learning performance of a cross-functional team?*

## Literature Review

A cross-functional team is usually established from the decision of top management. In this form of group work approach, individual members are asked to combine their expertise, knowledge, and insight as one entity to identify the challenges confronting the working operation of the organization so that an action can be implemented to assure that the goal and objectives can be attained. The practical idea of having a cross-functional team is to have the integrated talents of team members come up with some form of creativity or innovation for developing new products, improving the working system of the organization, maintaining or staying ahead of the market competition, and assisting others to learn and understand the greater details for enhancing operational performance so that the organization is able to thrive towards the future (Bunduchi, 2009). In a cross-functional manner, the team members are given a chance to showcase their unique abilities from their respective

discipline and are asked to make a professional contribution to explore and recommend for the best way in problem solving or offering solutions that can foster an effective teamwork philosophy in the workplace (Lovelace et al., 2001). Organizations that incorporate kaizen activities most often have a cross-functional team that is designed and utilized as a concept for getting employees involved, making incremental improvement, and promoting organizational culture change in driving and sustaining performance improvement (Van Aken Grado, et. al., 2010).

### **Factors for Team Learning in a Continuous Improvement Working Environment**

If an organization has set a commitment for continuously finding ways to improve the standard way of operation in the workplace (Topuz and Arazan, 2013), and being focused on eliminating problems and seeking for the best solution possible (Folinas and Ngosa, 2013) then management has to set the criteria for the teams to perform with the ability of being engaged on how to divide the processes and analyzing them which can give them a greater chance to focus on developing quality and cutting down on complexity, redundancy, and non-value added steps (Gil-Marques, and Moreno-Luzon, 2013). In a kaizen led working environment learning is stimulated in the working process for the purpose of letting the staff to constantly make an examination and propose some important questions to set the aims of the mission (Emiliani, 2005). Teams that are given an appropriate access for gathering information for conducting an analysis will be in a better position to confirm as a group on an appropriate study design and obtain the proper tools for making the right assessment (Al-Tahat and Eteir, 2010).

With the aim of making continuous improvement as part of the working culture, there has to be a system that emphasizes on encouraging individuals from a cross-level discipline to have a gung ho spirit that emphatically embraces a kaizen event when asked upon to participate. Top management and particularly human resource management need to find a continuous improvement concept of their own to configure the factors that lead to the anticipation of individual workers take part in a collective effort to support kaizen activities (Marksberry et al., 2010).

### **Learning Performance for a Cross-Functional Team in Kaizen Activities**

A learning performance can be sustained as long as the organization structure makes it a priority to do away with the policies and procedures that do nothing more than create frustration for team members in making an effort to carry out their duties. A holistic approach within the organization can break away from the negative working personalities of silos, self-interest, and being power-crazed while devoting more of the positive energy in changing and improving the working process and systems, as well as seeing how customer values can be added to expand the practical procedures (Sua´rez-Barraza and Ramis-Pujol, 2010). In reality, not every decision and action made is going to simply reach the targeted objectives with ease, nevertheless the deed taken should be in the direction to reinforce a positive learning environment for team members to reflect, relearn, seek for other methods through dialogues with fellow peers, and to experiment with some new tactic for organizing kaizen activities (Doolen et al., 2008). The balance between having enough time to learn and delivering the

results on time will often be viewed as quite challenging for kaizen activities. The study done by Shang and Pheng (2013) asserts that a tight timeframe compromises the control in accurate practice of kaizen as workers take drastic measures to deliberately shorten the schedule while being deviant from seeking for improvement. The authors indicate that time has to work its way around the team's capacity and capability so that the team members can set the condition for their fellow colleagues to follow and learn on the drive towards quality; the behavior and mindset becomes the critical point for reinforcing the morale for utilizing kaizen even in the midst of some struggle being encountered. Farris (et al., 2008) believes that certain boundary conditions (e.g., cost, etc.) should be arranged and then giving the team a high degree of autonomy in deciding what solutions to implement, as long as those boundary conditions are met. This idea is for the purpose of being prevented from being hindered in taking the necessary actions to complete a task and not having to become overly stressful with the amount of available resources to be used for problem solving.

### **Structural Role Supporting Teams to Learn**

Learning, like work itself, can only be produced if everyone within the organization is buying into their role and carrying out their tasks to ensure that the kaizen activities are making it possible for supporting the system in the workplace, identifying for better methods to reduce hazards in their working procedure, giving a chance for others to make a discovery on their own and share it with others, as well as equipping the team to be able to cross-function in a new challenging situation (Lareau, 2003). One of the organizational

structural role is on continuously looking for new ways to have their employees accept the working culture and style of wanting to work in a cross-functional setting while at the same time harping on the best practices that can enable the team to acquire the ideal learning techniques for taking a collective initiative in continuous improvement (Glover et al., 2011). The other role is on accentuating the benefits and fruitful results that empowers the workers' belief that such a system accommodates the group effort and acceptable for team members to go through some testing and experimenting with the ideas to be assure of their discernment without being heavily pressured to produce the results or being criticized for failing to deliver the outcome on time (Sandoval-Arzaga & Sua'rez-Barraza, 2010). While the kaizen concept has good intentions management has to be aware that not everything is perfect and that the feedback provided from participating team members can point out for ways to make progression. If the desire for the cross-functional team to learn is identified as the morale then the structural foundation that is in currently in place have to facilitate the working conditions for individuals to be given the time and space to obtain a keen sense and insight to strengthen their team's performance toward achieving the aims and objectives (Khan, 2011).

## **Research Methodology**

### **A Case Study on a Cross-Functional Team Learning During the Kaizen Events**

This case study was carried at a company, which shall go by the name of President's Food, which has been undergoing a long period of kaizen activities in its workplace. The author of the study was introduced to a cross-functional team by the quality

assurance manager which had been established to procure the company's philosophy and mission of maintaining operational efficiency and quality assurance. The quality assurance manager stated that *"the cross-functional team was composed by top management at the President Food Company to be the eyes, ear, and brain-trust to gather the intelligence back to them in finding better ways for continuous improvement in reducing the cost of production, decreasing the amount of materials being used, increasing the rate of production, improving safety at work, saving energy, limiting the procedures for work performance, and improving quality"*. Furthermore, it was understood that *"due to the numerous kaizen activities that had been taken on a monthly basis the work focused on case matters dealing with the reducing the production cost"*: the study chose five of these kaizen events to be examined through its documentation file with an interview of the key team members and management that procured the operation.

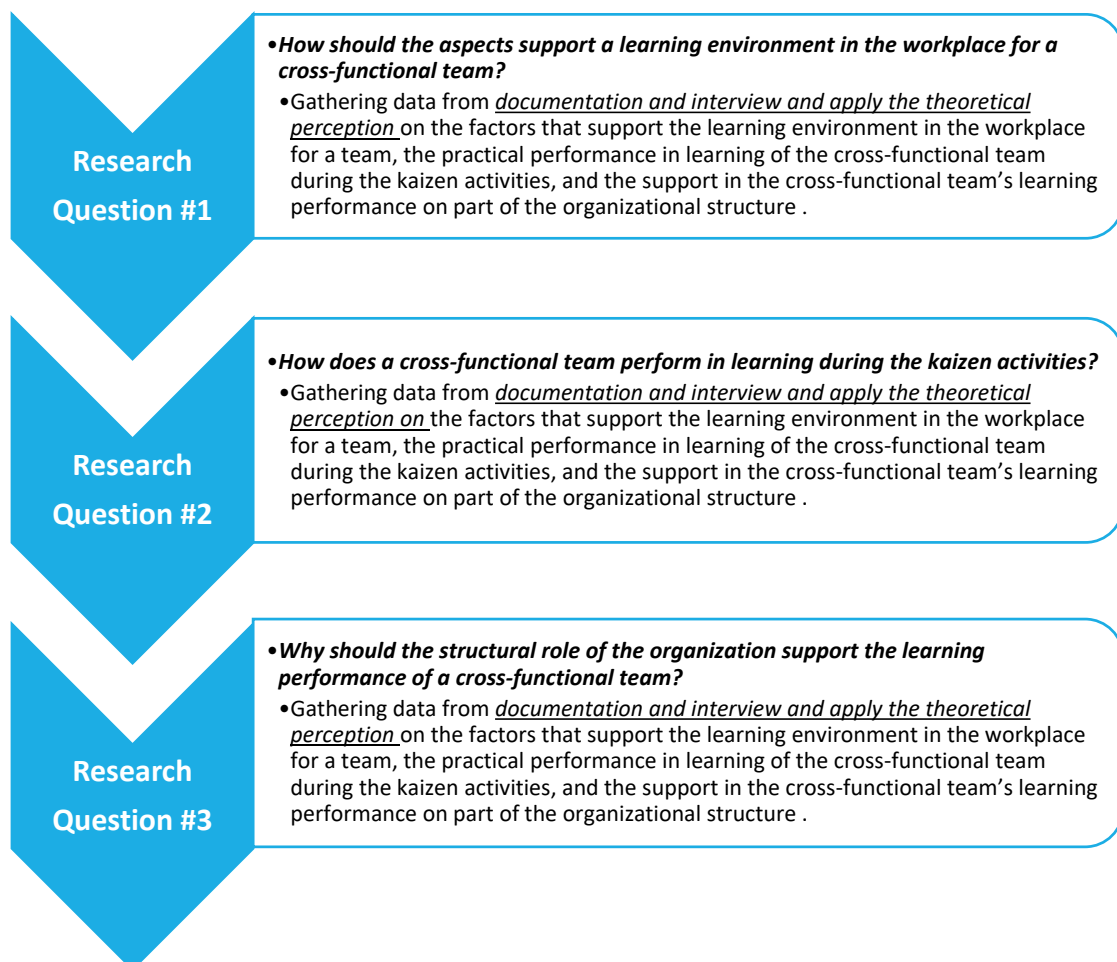
The methodology of the research oversaw two methods for gathering data for analysis: documentation and interview. 190 documented kaizen events were reviewed for the study. Out of this number, 49 cases which focused on the ways for improving workplace safety were chosen for thorough assessment. The process of documentation and interviewing were implemented with a theoretical perception on the factors that support the learning environment in the workplace for a team, the practical performance in learning of the cross-functional team during the kaizen activities, and the support in the cross-functional team's learning performance on part of the organizational structure. Following the guidance of Yin's approach for collecting case study evidence (Yin,

2009) whereas the documents had to be confirmed and enhanced from other sources, the quality officer was inquired about the recorded events and the action taken: it was revealed that certain meetings were held to discuss about workplace safety and the documents served as a reference point. It was learned that these documents served as part of the foundation for the Kaizen model which had been implemented from Japanese companies that were successful in running their operation in an efficient manner. The workplace safety documents were highly celebrated in President's Food annual review board when they reach a target number that indicates no accidents on the job. With regards to Yin's approach to an interview he recommends the process to be done in-depth by asking about the facts of the matter along with their viewpoints on the events. The in-depth interview was conducted with individuals involved in the cross-functional team (management, production supervisor, quality officer, safety officer, and operators) that took part in the kaizen activities. In terms of characteristics, management had a high expectation for getting things done, the production supervisor took a more efficient approach on things due to schedule, the quality officer provided the proper means of communication with others involved to meet the standards, the safety officer coordinated with all the staff around him to ensure that safety was being met, and the operators gave the necessary feedback through the line of operation. With referral to the document, each of the team members were asked by the researcher on the supporting aspects for a learning environment for a team, the learning performance as a cross-functional team during the kaizen activities, and the need for organization support in the team's learning performance. As the author of the study was given a site tour for



each area of the members' workplace station the explanation provided details with regards to the protocols, procedures, and the practical concepts that were highly required to be adhered to; therefore, the perception was that a system was already in place and the cross-functional team members were given the assurance that the positive results for enabling workplace safety would occur as long as everyone is committed on a continuous basis. Although there was an attempt to answer

the research questions the replies mainly consisted of what task and duties that each team member had to know what to do, so that when the events are documented there is more accurate information being presented for the quality assurance manager to take proper action and be allocated with the proper resources to obtain the results. Below is a conceptual framework directed towards summarizing the findings based on the three research questions raised in this study:



## Analytical Results

Data was collected from the Yin's tactical approach for documentation and interviewing. The information obtained from these two methods was triangulated to produce the facts for an analysis based on the three research questions. In the form of a qualitative analysis, the case study provided an explanation building of the events that have occurred based on the facts that had been procured. The three research questions have been transformed into statements which offer a clarification of the study.

### Supporting Aspects for a Team Learning Environment in the Workplace

Before an actual kaizen event can take place a suggestion form has to be filled out in order to understand the nature of the situation and the approach for obtaining the satisfying results. An interview with management states the rationale that

*“there has to be a working concept placed in hand so that the frame of mind sees and execute as one, otherwise people may drift off and do other activities that are not relevant to the objective”*. The personnel in charge of his/her area is asked to complete the suggestion form by stating the initiative, indicating the type of improvement task, filling out the details about the current situation/problem with information and image, as well as providing an ideal application to develop the issue, letting the committees know the extent of assistance, resources and financial support to proceed with the operation, and offering the expected benefits that would be gained from doing this event. Below is a sample of a kaizen suggestion form (which had been translated into English from the original document that is in the appendix section) from an organization that was chosen for research:



KAIZAN SUGGESTION FORM	
Proclaimer: 1..... Code #..... 2..... Code #..... Division:.....	No. <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Floor      Year      Month      Level Proclamation date: ...../...../.....
Stating issue: .....	
Area for Improvement <input type="checkbox"/> Reduce production <input type="checkbox"/> Reduce material cost <input type="checkbox"/> Increase <input type="checkbox"/> Safety <input type="checkbox"/> Saving energy <input type="checkbox"/> Reduce workload <input type="checkbox"/> Quality <input type="checkbox"/> Other issue .....	
<u>Problem identified/Current situation</u> (Draw out the picture, diagram or provide an explanation)	<u>Suggestion/Providing solution</u> (Draw out the picture, diagram or provide an explanation)
<input type="checkbox"/> Required procedures in assistance from other departmental units <input type="checkbox"/> Materials in use/Current resources/Improvement process does not require the use of a budget <input type="checkbox"/> Improvement process requires the use of budget for _____	
Timeline process _____ week, starting from _____ to _____.	
Expected results to be gained from the procurement _____ _____	
<b>Committee's consideration</b> Viewpoint of Department Head _____ Signature _____ Position _____ Date _____ <input type="checkbox"/> Accept the operation <input type="checkbox"/> Reject, due to _____	
Signature _____ Registered Applicant _____ Date _____ _____	

Figure 1 Kaizen Suggestion Form

Figure 1 demonstrates that, in a continuous improvement working environment, when there is a specific kaizen initiative placed on proper form and circulated for action then the members that are requested to participate should firmly align their skills and abilities to accomplish the overall purpose. Information within the suggestion form provides an outline of the idea, rational, concept, requirements for operation, and the expected gain from this completing the initiative. The characteristics of the kaizen suggestion form feature begins with the person filling out the form by filling out his/her name and job status, the “stating issue” box that serves as the main topic to be considered for operation, an “area for improvement” slot that identifies the aim to be focused upon, a channel that allows workers to draw out the problem at hand and how it should be solved as an idea, this is followed by the technical assistance to support the event with a timeline process and the “expected results to be gained” section that raises the mindfulness of the team for meeting the expectation. The form seeks the approval from the committee in order for the event to take its course. The kaizen suggestion form provides the direction for members of a cross-functional team to be grounded on the facts of what they are trying to accomplish as the channels of ‘problem identified/current situation’, ‘suggestion/providing solution’, selection from ‘required procedures, materials in use, and improvement process’, ‘timeline process’, and ‘expected results to be gained’ form a configuration to let the team be fully aware of their roles and responsibilities to make sure that objectives are highly attainable. While at the same, the form also serves as a testament on the reality of making a tremendous effort for improving quality. Such a form provides a sense for individual staff members to foster a

collaborative mindset as they become fully aware that changes are not just only need to be made but to be fully embraced as the working culture that is striving towards producing with quality and standards (Smadi, 2009). An interview with the quality officer and safety revealed that *“there is a need for team members to understand the situation at hand and gain a sense of appreciation of promoting the kaizen events because the changes taken place also create a positive working atmosphere”*. Such an optimistic activity invites a stronger discipline among fellow working colleagues to see beyond their working routines and become more open to alternatives that can make them highly cooperative and coordinated as they complete their tasks and assignments in a constructive manner (Yokozawa and Steenhuis, 2013). The real outcome that was produced from the suggestion form can be viewed by the cross-functional team not only based on the intended results but also as a workshop for studying their methodology applied and to gain the mastery of obtaining effective results, as well as discovering better ways for sustaining the learning performance as a team (Schindler and Eppler, 2003).

### **Cross-Functional Team’s Learning Performance in Kaizen Activities**

With a diverse range of skills, expertise and competence being processed into the event members of this specific team formation are asked to buy into their role. Just like a professional sports team, such as basketball, ice hockey, or North American football, some individuals have to realize that they cannot always be the leading star athlete or assume a specific role where the highlight of the event is going to shine on them. In this case, the important thing is to provide assistance and support so that working operation fulfills the intended outcome. While corroboration is deemed

as imperative for performing and learning as a cross-functional unit participants have to set aside charged emotions that find the faults and mistakes of others, and highlight the positive points for further communication and feedback instead (Titu, Oprean and Grecu, 2010). Upon interview with the team there were some errors mentioned with regards to the day to day operation. Members proclaimed that *“although everyone has good intentions to complete their assignments and are making tremendous effort to obtain results the team felt that it was necessary to see how the context of safety can be improved upon rather than getting caught up in a conundrum of why couldn’t they just do it like this or like that”*. It was also learned that due to the nature of task interdependencies that are heavily dependent on a strong collaboration for learning performance *the team is always thinking and asking about how things can be done better or a lot smarter in mitigating the chances of accidents from occurring*. But in order for them to be accountable and mindful they had to brand the process that makes their team members and for other workers who are not directly involved to feel that it’s safe and sound for expressing one’s point of view. From this information, when team members are given space to discuss about moderate approaches toward gaining a better understanding, effective working procedures, and being able to make suggestions for examining and verifying the results then it creates a positive aura for the learning performance to take place in the workplace (Harteis, Bauer and Gruber, 2008). The learning performance occurs in a team when the team becomes a part of motivational factors that enable workers to observe the surrounding circumstances as it unfolds and to make some analysis that supports the mission objectives of the organization; thus helping

the team to obtain greater detail of the situation and to implement the decisive actions that are more confident to take (Greene, 2012). With the issue of safety in the workplace as one of the top priority in a kaizen led working environment a cross-functional team truly learns more on this matter when individuals are able to see the unseen, hear what has been unheard, and at least feel the issue that has often been difficult to touch upon (Jackson, 2014). Having the behaviors to keep on learning is also depended on others to be honest and straightforward with the issue while making sure no one has intimidated to voice their opinions or self-censoring their thoughts due to fear of repercussions of not displaying loyalty (Andersen.sdu.dk).

### **Structural Role of Organization in Supporting Cross-Functional Team’s Learning Performance**

While the structure within the organization exemplifies the rules and guidelines it has to ensure that it is fostering a working climate and environment that encourages the team to learn, relearn, and at times unlearn some of the standard that is in the operational framework. Based on the interview, *“the team needs the organization as a whole to support the intended outcome by being able to adapt and go with the changes that are based on the results reported in from doing the kaizen activities, thus allowing them to try other methods that can prove better in the long run”*. Although the kaizen process takes time to produce real time outcomes for further decision making the team wants the board of directors to provide some valuable inputs to enable the work to not only operate on a smooth basis but it doesn’t put the pressure on other workers to participate in producing some results. Focusing on the issue of safety is quite dynamic for a cross-functional team as

individual members have to maneuver around the psychological aspects to alleviate the feeling of being exposed to risks and countermeasures (Schneier, 2008) in addition to the system brandishing the sensation of protection, certainty, and survival for workers to be assured of doing maximum production without any unwanted revelations along the course (Bar-Tal and Jacobson, 1998). It was also learned from the interview that *“the team had to assume the role as a booster club to sustain the morale in submitting the kaizen suggestions on a monthly basis despite being aware that workers also understood that not all suggestions have been given priority”*. Although the team acts as the voice to cheer on for encouraging kaizen activities the organization serves as the heart that embraces the events by expressing appreciation on the effort and discipline to all staff members at seminars and banquets. Just how a crop is dependent on the soil’s richness, water’s purity, climate’s support, and sun’s timing for a healthy growth the learning performance of a cross-functional team can only go so far with the strength in structure’s assistance and guidance. Therefore, the policies and rules should be integrated to enable the team’s learning performance to flourish by configuring on ways to make the working operation conducive for being able to ask, experiment, and reflect with a sense of trust that there will be no ad hoc decision making that could derail the mission (Chatterjee, 2012). To see how much actual progress the team has accomplished in the learning performance on safety the authorities in the power structure need to have a feedback session that keeps them abreast on the day-to-day affairs. With the force in their hand to make things happen, the top directors can give the impression of security by developing the communication channels for team members to maintain

contact with the relevant staff workers to acquire critical information and act as a barrier that prevents disruption or disturbance to the team’s endeavor towards reaching the aims and objectives (Hendrickson, 2012). While in the midst of assisting the team in its learning performance the top directors learn in action the best practice for conditioning and coordinating the working system for a cross-functional team to excel (Pentland, 2012).

## Discussion & Conclusion

Learning as a cross-functional team in a kaizen-led working environment can only be performed effectively when there is a proper circulation that calls for action, team members being able to enact their supporting role, and the structure fashioning a working system that enables the team to achieve its assignment. The latter is about demonstrating accountability to a commitment towards continuous improvement so that the whole organization embraces the working culture (Aoki, 2008) while the two previous issues sets the direction for what needs to happen and the requirements to make it happen as well as arranging for future appointments to function as a cross-functional team for taking on challenging assignments and gaining a sense of appreciation on doing them (Suárez-Barraza and Lingham, 2008). Management has to consider the factors for promoting a proper working environment for team members to learn in a cross-functional manner by setting up policies and procedures that reveal themselves as part of the kaizen foundation. There should be a platform for team members, which represents a method for continuous improvement, to discuss about the events that are actually going on and then to offer some adjustments to ensure the process is

aimed towards the intended outcome. Cross-functioning as a team on the basis of continuous improvement should be open and adapted to new ideas from fellow colleagues who are coming from a disciplinary background so that there's no shortsightedness for being innovative or creative. The learning performance of a cross-functional team can never be 100% perfect but the strive for perfection must be a collective effort to overcome any setbacks when the plan to obtain workplace safety falls apart. Team members should be allowed to ask questions and examine the process to ensure that the concept is updated and that the practical procedures for supporting kaizen are aiming towards the objectives and goal. Bringing together the skills, expertise, abilities, and talents of staff to form a cross-functional unit is a challenge from the start due to the dynamics involved. However, whatever may occur unexpectedly or become unwanted obstacles along the journey to continuous improvement the team needs to be given the psychological security to fulfill its objectives: a constructive framework to address the managerial reluctances to kaizen implementations, and offering more flexibility to both management and kaizen facilitation in planning and execution for the purpose of maintaining progress (Culcuoglu and Wang, 2012). Therefore, the structure of the organization has to guarantee that the ideas that they want from upholding kaizen is acknowledged to be a tool that provides the appropriate time, resources,

and energy for members of the cross-functional team to attain the mission objectives. The organizational structure should provide the wisdom and logic on certain task and actions will be called for changes while others to meet the challenge for sticking with the course until the aims are achieved. In conclusion, this work conducted a practical study on the idea of learning as a cross-functional team in a workplace environment that is kaizen driven. The chosen site, known as President's Food, for conducting the research work was due to the company's large amount of ongoing activities related to continuous improvement for its standard of working operation. This company not only had the idea, but also the structural format and the personnel staff to procure the events on a monthly basis. What's intriguing is that it is a Far Eastern concept for raising the standards incorporated by a Thai operated company where the working culture emphasize on working at a moderate pace and handling tasks at a less hectic pace. By raising the questions on the aspects that support the learning environment, how such a team performs in learning, and the structural role's support for the team's learning performance the analysis gained was quite satisfactory. The limitation for carrying out the study was the time and space to actually obtain real data being produced for in-depth examination. Perhaps another approach, such as storytelling from the team or a timeline on one of the kaizen event, for doing the research would provide some better insights in the future.



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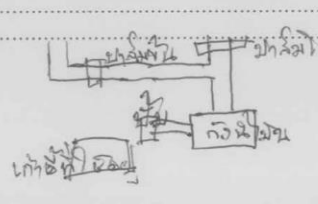
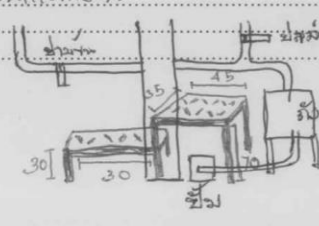
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## Appendix

แบบฟอร์มไคเซ็น ( KAIZEN SUGGESTION )		หน้า 1
ผู้เสนอ : 1. ศุภชัย ธารนิล	รหัส 01-024840	เลขที่ SN 01-02-04-014
2. ....	รหัส .....	พื้นที่ พ.ศ. เดือน ลำดับ
หน่วยงาน : สำนักงานประจวบ	วันที่นำเสนอ 4 / 7 / 55	
ข้อเสนอแนะเรื่อง : น้ำเปิด-ปิดวาล์วน้ำดื่ม ปากน้ำดื่ม-ปากน้ำดื่ม		
ประเภทการปรับปรุง <input type="checkbox"/> ลดต้นทุนผลิต <input type="checkbox"/> ลดค่าใช้จ่ายวัสดุอุปกรณ์ <input type="checkbox"/> เพิ่มผลผลิต <input checked="" type="checkbox"/> ปรับปรุงความปลอดภัย		
<input type="checkbox"/> ประหยัดพลังงาน <input type="checkbox"/> ลดขั้นตอนการทำงาน <input type="checkbox"/> ปรับปรุงคุณภาพ <input type="checkbox"/> อื่นๆ .....		
ปัญหา / สภาพปัจจุบัน (รูปภาพ รูปถ่ายประกอบ หรือ คำอธิบาย)	ข้อเสนอแนะ / แนวทางการปรับปรุงแก้ไข (รูปภาพ รูปถ่ายประกอบ หรือ คำอธิบาย)	
<p>เวลาเปิด-ปิดน้ำดื่มปากน้ำดื่ม-ปากน้ำดื่ม ทำให้ต้องวิ่งวนหาเวลา เพราะสวิตช์มีเล็กเกินไป ไม่สะดวกเปิด-ปิดน้ำดื่ม</p> 	<p>จะนำสวิทช์เลื่อนน้ำดื่มให้แก้มกดง่าย การทำแก้มกดแบบขึ้น-ลงแทนสวิตช์เปิด-ปิดน้ำดื่ม แทนสวิตช์เดิม เพื่อป้องกันความผิดพลาดของพนักงานที่ไปกดของงานอื่น และสังเกตเพิ่มขั้นตอนการทำงาน</p> 	
<input checked="" type="checkbox"/> ในการดำเนินการต้องการความช่วยเหลือจากหน่วยงาน ... ..		
<input checked="" type="checkbox"/> วัสดุ / อุปกรณ์ที่มีอยู่ / ไม่ใช่นับประมาณในการปรับปรุง		
<input checked="" type="checkbox"/> ใช้งบประมาณในการปรับปรุง ได้แก่ ... ..		
ระยะเวลาในการดำเนินการ 1-2 อาทิตย์ ตั้งแต่ ... .. ถึง ... ..		
ผลที่คาดว่าจะได้รับ ทำให้เรื่องต่อการผลิตมากขึ้น ไม่เป็นอุปสรรคต่อพนักงานที่เปิด-ปิดน้ำดื่ม		
ส่วนของการคณะกรรมการไคเซ็นพื้นที่		
ความคิดเห็นของหัวหน้างาน		
<input checked="" type="checkbox"/> ลงชื่อ _____ ตำแหน่ง _____ วันที่ _____		
<input type="checkbox"/> รับลงทะเบียน		
<input type="checkbox"/> ไม่รับลงทะเบียน เหตุผล _____		
ลงชื่อ _____ ผู้รับลงทะเบียน _____ วันที่ _____		
แก้ไขครั้งที่ (จัดทำครั้งแรก) เริ่มใช้ วันที่ 22 กรกฎาคม 2553		

Original Kaizen Suggestion Form

# Other dimensions of organization aspects that cause organization in effectiveness

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## Abstract

In daily interaction with team members, the Manager sets out the performance parameters. The Manager being the leader of the team advises on the best ways of attaining the desired objectives. He suggests and manages the ways of business for best implementation of business objectives by management practices that yield effective results. Sometimes, the manager being the member of implementation team fails to analyze the unexpected malfunctioning of the organizational work system and ineffective performances and results accruing from organization practices since he or she is part of the system. Since the things seem right in management theory the malfunction or ineffectiveness gets concealed under the acceptable surface of management theory. This article reviews some facts about acceptable aspects in organizations, such as Shamrock Organization, Glass Ceiling, Devil's Advocacy and Management by Consensus, which are some of the plausible reasons of organizations effectiveness or ineffectiveness.

**Keywords:** Organization Ineffectiveness, Shamrock Organization, Glass Ceiling, Devil's Advocacy, Management by Consensus



## Introduction

We realize the importance of organizational performance and organizations effectiveness in the overall development of the organizations as a collective group, team activity.

We know organizations effectiveness is achieved when work procedures, systems and behavior conform to established standards and practices which ultimately help in accomplishment of organizational goals.

The most significant work-related concerns, team members face involves, ignorance of subject, inaccurate performance by some team member, excessive reliance on each other's for attaining the objective and ignorance of the ultimate result of their labor.

Work systems are sometimes poorly conceived and goals sometimes turn out to be unachievable, because there are some aspects in work procedures and systems that are wrong and ill-conceived on false understanding of past events and results.

This article would present other dimension of organization aspects or phenomena that cause organization ineffectiveness.

## Shamrock Organization

A form of organization composed of three interlocking leaves in the sense of three distinct groups of workers who are treated differently and have different expectations. Shamrock is the plant, its leaves formed a triad. (Hannagan, Tim, 2009, refer to Handy, Charles, 1987. *The Making of Managers*, London: Manpower Services Commission, National Economic Development Council, British Institute of Management.)

Hannagan suggests that a small group of specialists "core" workers form the first leaf. They are the nerve center of the

organization in the sense that they are essential to its work and success. They are both specialists and generalists who run the organization and control the technology which has replaced, to a large extent, much of the labor force.

The second leaf, the contractual fringe, may or may not work exclusively for the company. Its constituents carry out certain tasks for which they are paid a fee based on results, rather than based on the time taken.

The third leaf of the shamrock organization, the flexible labor force, comprises a pool of part time workers who are available for use by the organization

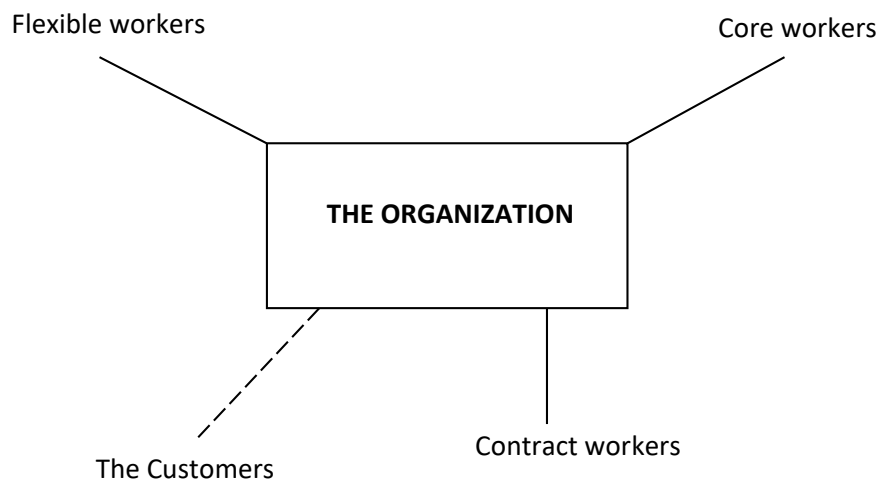
There are a number of organizations that have three interlocking leaves. It is admitted that this structure is reasonable. This is about division of labor, specialization and chain of command. It is obvious that the first leaf employee, specialist employee or professional employee receives special rights or better property rights than other leaf employees. As a specialist or professional, the organization provides variety of facilities from office cabin, desk top, flexible working hours to golden parachutes, stock options, large salaries, control over organizational resources and over all decision making. Whereas the second leaf employee have a different limited salary ceiling, narrow scope of property rights, fixed working hours, and insignificant participation in decision making. Not to mention about the third leaf employee, they cannot access the company rights even cannot participate in company celebrations or parties.

The organizational focus being on the First and Second leaf employees, the third leaf employees obviously are treated differently. They have different unrecognized status in the organizations and their opportunity for negotiation with



management are limited. On the other hand, the Second leaf employee has favorable negotiation opportunity with the management. They find different valuable tradeoffs or need less persuasion to persuade the management to agree. But this tradeoff with Second leaf employee is

vulnerable. Some of them are more likely to claim their higher status and flexible benefits, but in reality, their demands are unreasonable and unachievable. But managements ignore these realities at the peril of achieving results at all cost.



**Figure 1** The Shamrock Organization

Source: Hannagan, Tim (2009), *Management: Concepts & Practices*, 5<sup>th</sup> Ed. United Kingdom, Pearson Education Limited.

We realize the Shamrock organization is a common practice but it seems difficult to build rapport among employees. Viewing this situation, Shamrock organization value employees differently. It is difficult to narrow the gap between the different leaf employees.

Not surprisingly, the Second leaf employee often select to leave the organization to other organizations that they expect to get better status, career path and less difference among different levels of employees.

Shamrock organization leads to insufficient motivation and drive of a particular group of employees. Their co-operative moves

are likely to be decreased. Also, the employees face Job stress and burnout problem and adopt negative and untrusting attitude. Not only the conflict spreads among employees, the conflict also spreads between employees and executives. If organizations are not aware of this, the situation will become more difficult to overcome.

Undoubtedly this organizational structure has the problem of building a healthy conducive relationship among employees, and fails to build co-operation among employees and cannot encourage trust among the employees which finally effects the organization effectiveness.

## Glass Ceiling

Glass Ceiling is the invisible barrier that prevents women and minorities from advancing to the top jobs in organizations. (Williams Chuck, Management, 2012). We find this incidence not only in Asia but also in organizations across the Western hemisphere.

This effects the morale, incentive, ambition and drive of female & minority employees. It is true that many companies formulate policies that encourage and foster diversity. Yet we have to admit that many organizations have glass ceiling. Female employees are not able to advance beyond certain position at high level. Focusing on minorities in workplace, there could be some employees with different race, religion, nationality, ethnicity even different educational background or other classification. As implied, some people are more visibly different than others because of physical features or disabilities.

The fact that minorities could be with exceptional expertise, rare knowledge or some excellent skill sets is often unexpected. This could be implied to the politics of workplace as the employees are one among many political groupings in the company. It is found that minorities in different political groups are passed over for promotion in favor of other candidates despite equal qualifications.

Glass ceiling against any of minorities group whether based on any classification, decreases minorities' opportunity to step to the higher level executive positions, even being treated differently from other employees. Glass ceiling can greatly harm employee's self-esteem, individual motive, work contribution, dedication, and sense of safety. It can cause incredible damage to the organization as the organization misses the opportunity to have an

excellent talented employee to conduct the specialized tasks.

Possibly women or these minorities could have outperformed those who always had the chance.

## Devil's Advocacy

A decision-making method in which an individual or a sub group is assigned the role of a Critic. According to Cambridge Dictionary, the person who act as 'Devil's Advocate' is someone who pretends, in an argument or discussion, to be against an idea or plan that a lot of people support, in order to make people discuss and consider it in more detail.

Having a Devil's Advocate in a team who is responsible for raising tough questions in a constructive way is critical to the success of the team. Every company attempting to innovate needs some version of a Devil's Advocate—both to head off problems and to bring out the best efforts of the organization. (Mui, Chunka, 2014)

Devil's Advocacy creates conflict by assigning an individual or a subgroup the role of critic. (Williams Chuck, Management, 2012). In work when you were debating an issue or in a group decision making process, you might ask someone or another party to be the Devil's advocate. It would mean to argue against the topic. It seems like persuade someone to conduct dialectical inquiry. This person or this party act as being argumentative. They have to analyse the situation from other angles so that a solution can be reached. The person or party who plays the Devil's Advocate, takes the contrarian view, will always ask undesirable, unpleasant, difficult questions, typically with good intention, so that the problem can be analysed holistically taking all

angles into account for reaching a good, correct solution.

Fundamentally, Devil's Advocacy is the system where flaws in the system are uncovered by technique of "Honest Inquiry". The use of Devil's Advocacy is the attempt to counteract GroupThink. The Devil's Advocacy should develop a re-analysis of the problem and alternative recommendations.

On the other hand, Devil's Advocacy could affect negative outcomes. Schwenk, Charles R. indicated that one major caution regarding the use of Devil's Advocates has to do with the attitudes of those in the decision-making group. Devils Advocates should only be used if decision-makers can honestly question their basic assumptions and have a sincere commitment to the Devil's Advocate process. Without such commitment, the use of Devil's Advocate may not be useful may prove to do more harm than good.

The problem here is the person who acts as Devil's Advocate could present strong negative criticism which could intimidate, discourage and demoralize other team members. This causes tension, frustration and sense of conflict in the group. Also in some cases where the person who acts as a Devil's Advocate has a bias against some team member, he could intentionally attribute malevolent motives and create humiliation and resentment to that person. Thus, team work could take a hit due to lack of cohesiveness in the team, lesser participation and coordination in decision making activities, more anxiety among team members toward one another and greater opportunity for unproductive conflict. This situation does not allow organisations to achieve superior efficiency.

## Management by Consensus

Minnesota Department of Health indicated that Consensus management means that when a decision is reached by the group, there is total commitment to it by all members. It does not necessarily mean the decision was reached easily or that there were not widely differing views shared and debated during the group's discussion. But once consensus is formally achieved, division of opinion, so far as that decision is concerned, should cease.

Consensus decision making is a creative and dynamic way of reaching agreement between all members of a group. Instead of simply voting for an item and having the majority of the group getting their way, a group using consensus is committed to finding solutions that everyone actively supports, or at least can live with. This ensures that all opinions, ideas and concerns are taken into account. Through listening closely to each other, the group aims to come up with proposals that work for everyone. Consensus is neither compromise nor unanimity - it aims to go further by weaving together everyone's best ideas and key concerns - a process that often results in surprising and creative solutions, inspiring both the individual and the group as whole. (<https://www.seedsforchange.org.uk/consensus>)

When the group can reach consensus, group obtains agreeable solution. Consensus decision making builds on team spirit, bond of friendship, trust, honest intention, respect, cooperation and capability to tuning attitude among team members.

Hannagan Tim indicated that we often hear leaders of groups or activities say that they want to manage by consensus. However, in many cases, they do not know

or understand the meaning of consensus and the benefits and detriments of its use in group politics and overall decision making. While the intent is to bring the participants to common ground, the results can unfortunately also be divisive and counter-productive if misapplied.

When done right, management by consensus is an effective method of decision making. According to 'Seeds for Change'

([www.seedsforchange.org.uk](http://www.seedsforchange.org.uk)), management by consensus involves common goal sharing, that require shared vision among team members, commitment and patience, trust and openness, sufficient time, clearly understanding the process, active participation, good facilitation, active listening, a succinct and accurate summarizing.

It also requires other team members communication skills such as conflict resolution, creative thinking and open-mindedness.

Something can be happening to minimize the advantage of management by consensus and finally decrease organization effectiveness.

It is considered that consensus could be effected by **Groupthink**.

Groupthink, a term coined by social psychologist Irving Janis (1972), occurs when a group makes faulty decisions because group pressures lead to a deterioration of "mental efficiency, reality testing, and moral judgment" (p. 9). Groups affected by groupthink ignore alternatives and tend to take irrational actions that dehumanize other groups. A group is especially vulnerable to groupthink when its members are similar in background, when the group is insulated from outside opinions, and when there are no clear rules for decision making. ([http://www.psycsr.org/about/pubs\\_resources/groupthink.htm](http://www.psycsr.org/about/pubs_resources/groupthink.htm))

Groupthink is a psychological phenomenon that occurs within a group of people in which the desire for harmony or conformity in the group results in an irrational or dysfunctional decision-making outcome. Group members try to minimize conflict and reach a consensus decision without critical evaluation of alternative viewpoints by actively suppressing dissenting viewpoints, and by isolating themselves from outside influences, (Wikipedia)

Groupthink occurs when people choose not to disagree or raise objections because they don't want to break up a positive team spirit. Some groups want to think as one, tolerate no dissension and strive to remain cordial (Bateman and Snell).

There is a reasonable chance that Groupthink will occur, when people have been working together as a team work for some continuous period of time, they would facilitate close cooperation. They chose to provide meaningful consensus agreement. Smooth interaction is achieved when they use consensus in decision making. Maintaining group harmony is more important than reaching good solutions. Besides, support, trust and harmony is the basic requirements for successful team work.

Typically, group members have some time to consider the problem or decision and present their ideas and alternative for entire discussion. Sometimes, deadlines and time pressures coerce that the views be made immediately that are accepted quickly. Accordingly, groupthink occurs and consensus comes.

Sometimes Groupthink and consensus happens when team member are so much concerned and considerate of other members. The team should include members with a mix of experience and capabilities with various ideas, viewpoints and perspectives. When this whole comes



with a consensus idea, it effects the outcome is terms of a less creative idea, less innovation, and less effectiveness of the organization.

## Conclusion

Well managed Organizations emphasize on well organized structure with challenging systems and process, inspiring shared vision, encouraging the team with participative strategic thinking leaders with global minded leadership.

Managers must also strive for effectiveness, which is accomplishing tasks that help fulfill organizational objectives.

Sometimes managers have trouble figuring out an ideal work system or a process that helps organization achieve its objectives.

Managers as human beings, have a vivid understanding about things that can go right or wrong. There are some things which they know theoretically, from past experiences and from their exceptional talents and instinct. Yet there are some things which are practically out of the managers' sight in the day to day mundane life in the workplace.

Consequently, managers have to keep updating their professional skill sets theoretically and practically to stay relevant in this fast-paced action-oriented internal and external environments facing today's organization.

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# Impact of RMB exchange rate on Shanghai Stock Exchange Composite Index in China

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## Abstract

This thesis explore the relationship between macroeconomic factors and Shanghai stock exchange composite index , Such as exchange rate (Normal Effective Exchange Rate), inflation rate, interest rate, money supply (M1), foreign direct investment (FDI), GDP, export and currency policy (dummy variable), Data period from July 2005 to March 2014 which contains a monthly data set of 105 observation by using multiple regression analysis, The result shows that the exchange rate (NEER), inflation rate, money supply and export have a significant on shanghai stock exchange composite index.

**Key words:** Exchange rate (Normal Effective Exchange Rate), Inflation rate, Interest rate, Money supply, GDP, Foreign direct investment (FDI), Export and Currency policy (dummy variable).



# Introduction

## Background of the Research

Financial market as stock market is the center where most Chinese investors focus on, and this can provide more potentials and opportunities for common people in Chinese stock market (He et al., 2014).

However, Chinese stock market may be different from western stock market which its regulation and management are under perfect condition (Johansen & Sornette, 2001). When considering to practical marketing situation, Chinese investors find it possible to experience the uneven market and feel unstable to make investment decision. For example, China adjusted its exchange rate after 2005, and investors are then excited about the increasing trend of stock market (Qiao, 2007).

China has more opportunities to make businesses with international market and thus the value of RMB plays an important role international business. Chinese government tends to further increase RMB, which consequently leads to more stable stock market and relationship between RMB and stock market (Ozdenoren & Yuan, 2008). As a consequence, this thesis will discuss the effect of RMB exchange rate on Chinese stock market, and the result of this thesis will benefit not only investors, but also governments.

## Research Objectives

By reviewing a number of researches, exchange rate and stock price should have a certain relationship, namely, exchange rate may influence stock market. Therefore, this dissertation will mainly complete one objectives.

To investigate relationship between Shanghai Stock Exchange Composite Index

with the macroeconomic factors with focus on the exchange rate.

In this paper, we will use the nominal effective exchange rate (NEER) as a measure for RMB exchange rate. A nominal effective exchange rate (NEER) is the un-adjusted weighted average value of a country's currency relative to all major currencies being traded within an index or pool of currencies. The weights are determined by the importance a home country place on all other currencies traded within the pool, as measured by the balance of trade.

## Research Questions

Foreign currency market and stock market are regarded as important sub field markets of financial market, which can directly reflect the real situation of the whole economy. In particular, their relationship between these two markets is relevant to economic stability and development, and thus it is necessary to explore their relationship under this situation. As a consequence, starting from the point of RMB exchange rate is indispensable to guide economic development and create meanings for investors and governments. Thus, the effect of RMB exchange rate on Shanghai Stock Exchange

Composite Index will be explored. Namely The relationship between RMB exchange rate and Shanghai Stock Exchange Composite Index.

1. Is there a significant relationship between RMB exchange rate and Shanghai Stock Exchange Composite Index?
2. Do macro-economic factors influence Shanghai Stock Exchange Composite Index?

## Expected Benefit

For these researches, it can be found that macroeconomic factors have a direct effect on stock market, worth noticed by investors who chase for more returns.

1. Investor may look into the finding in this paper for estimating the future movement and direction of the equity prices.
2. Investor can formulation investment decision.
3. Investor can identifying accessible investment prospect.

Besides, most governments actually have a strict control in managing stock market where people with different backgrounds may be depended on stock market.

Investors in Shanghai Stock Exchange Composite Index want to obtain more returns and they find it impossible to curb their expectations.

## Literature review

### Review of Literature

Stock price is an important indicator for portfolio management. Many of the researchers are interested to identify the significant effect between the macroeconomic variable and stock market.

To discuss how the RMB exchange rate influences on Shanghai Stock Exchange Composite Index, this section will begin to explore the relevant researches on this thesis. We will be discussed the factor of Macroeconomy, like Exchange rate (NEER) , inflation rate, foreign direct investment (FDI), money supply (M1), interest rate, GDP, currency policy(dummy variable) and Export. This section can help reader develop a clear understanding of RMB exchange rate and Shanghai Stock Exchange Composite Index as well as lay the theoretical foundation for this thesis.

Hypothesis 1: The Inflation Rate has an effect on Shanghai Stock Exchange Composite Index.

### 1. Inflation Rate Determinant of Stock Market

Li Chun, Luo Jian Mei and Yang Zhi Bing (2001) who discussed the relationship between inflation rate and stock market, used the Shanghai Stock Exchange Composite Index and inflation rate, the result showed that the inflation rate and stock market has a positive significant.

Maku and Atanda (2010) investigate the inflation rate effect on the Nigerian stock market during 1984 and 2007. They used ECM and ADF test, The result shows that the relationship between inflation rate and Nigerian stock market have a significant positive.

Kibria, et, al (2014) investigated that the impact of inflation rate variables on the stock market in Pakistan. They applied regression test, correlation analysis and granger causality test to check the data, period from 1991-2013 . The findings that the inflation rate variable have a significant positive impact on stock market.

Hypothesis 2: The exchange Rate (NEER) has an effect on Shanghai Stock Exchange Composite Index.

### 2. Normal Effective Exchange Rate Determinant of Stock Market

Aggarwal (1981) reviews the stock price of American stock market from 1974 to 1978, which determines that the price of dollar can develop a positive effect on return of stock market and this effect is much more evident in short-term period than that in long-term period.

Ibrahim and Musah (2014) investigated that the nominal effective exchange rate effect on stock market in Ghana. The data

period from September 2000 - September 2010 by using monthly and employed the Johansen multivariate co-integration test and Vector error correction model. The result found that the nominal effective exchange rate has a positive significant impact on Ghana stock market.

Mutuku and Ng'eny (2015) examined that the impact of the nominal effective exchange rate on Kenya stock market, The Data period from 1997-2010 by using quarterly data and employed the Vector error correction and Vector Autoregressive model. The result shows that the nominal effective exchange rate has a positive significant effect on stock market.

Hypothesis 3: The Foreign Direct Investment has an effect on Shanghai Stock Exchange Composite Index

### **3. Foreign Direct Investment Determinant of Stock Market**

Foreign direct investment is the main source of international finance cash inflow.

Muhammad Nauman Khan and Sharif Zaman (2009) investigated that the foreign direct investment (FDI) effect on Karachi stock market. The data collection period from 1998-2009. The result finding that the FDI was insignificant with Karachi stock market.

Sulainman Umar Musa (2010) investigate that the impact of FDI on Nigerian stock market, Data collected period from 1981 - 2010, They finding that there is insignificant between FDI and Nigerian stock market.

Hypothesis 4: The Money Supply has an effect on Shanghai Stock Exchange Composite Index.

### **4. Money Supply Determinant of Stock Market**

Money supply means the total quantity of money existing in the market at a precise of period (Johson, 1994).

Maysami, Howe and Hamzah (2004) examined that the money supply has a positive effect on Singapore stock market. The causality between stock markets money supply was investigated also by Brahmasrene and Jiranyakul (2007), In their paper that Thai stock market data period during from 1992 to 2003, they found a positive relationship between the stock prices and money supply.

Sohail, et, al (2009) used VAR model and investigate short-run and long-run relationships between stock market and money supply, They use monthly data period from December 2002 - June 2008. The result found that the money supply has a positive effect on stock market.

Hypothesis 5: The GDP has an effect on Shanghai Stock Exchange Composite Index

### **5. Foreign Gross Domestic Product (GDP) determinant of stock market**

Izodonmi and Abdullahi (2011) investigate the impact of GDP on the Nigerian stock market, Data during from period 2000 to 2004, They used ordinary least square test (OLS) and the result found that the GDP have no significant impact on the Nigeria stock market

Zakaria, et al. (2012) used VAR and GARCH to examine the relationship between Foreign Gross Domestic Product and Malaysia stock market and employed monthly period from January 2000-June 2012, They result found that the GDP have no significant effect on stock market.

Hypothesis 6: The interest rate has an effect on Shanghai Stock Exchange Composite Index.

## 6. Interest rate determinant of stock market

Finance theory explains interest rate as a measurement of time value of money which is one of the main determinants in stock prices.

Gan, Lee, Yong and Zhang (2006) investigate that the interest rate and stock prices have a long term negative relationship. In their paper,

Liu and Shrestha (2008) examine the long run relationship between interest rate and stock indices in China employing heteroscedastic co-integration analysis and finds that the long term relationship does exist between stock market and interest rates.

Hypothesis 7: The export has an effect on Shanghai Stock Exchange Composite Index

## 7. Export Determinant of Stock Market

Hussain, et, al, (2012) used the ADF,VECM ,Co-integration analysis and Granger causality test to examine export

variable on the stock prices, Data during from January 2001- December 2010 monthly data. They finding the export have a negative significant effect on the stock prices.

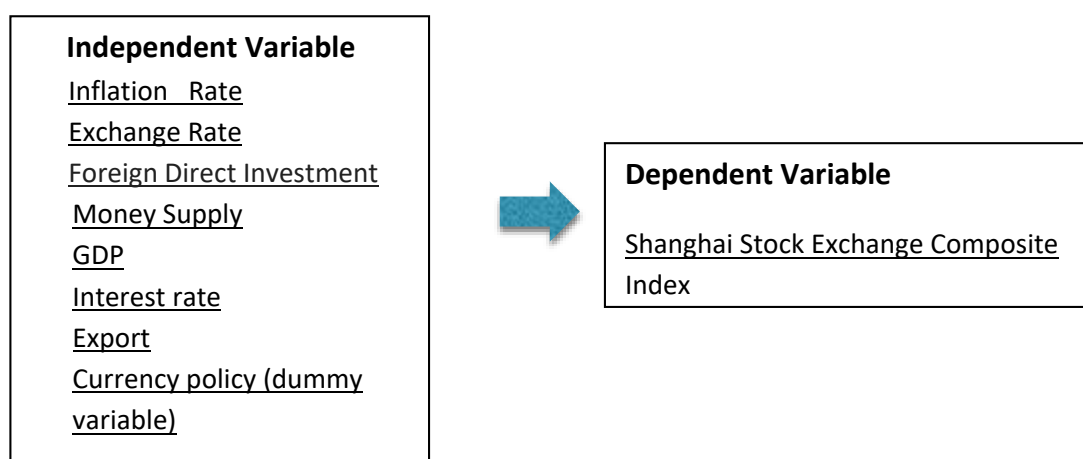
Samontaray, et, al, (2014) studied the relationship between the Saudi export and Saudi stock market, The data period during December 2003-December 2013 of monthly data. They used the regression analysis and correlation analysis and result shows that the Saudi export have a significant effect on Saudi stock market.

Hypothesis 8: The Currency policy (dummy variable) effect on Shanghai Stock Exchange Composite Index.

## 8. Currency Policy Determinant of Stock Market

Cassola and Morana (2004) used the VAR model and co-integrated to examine the relationship between currency policy and stock prices. They result indicate positive currency policy has a positive impact on stock prices.

## Conceptual Framework/ Hypotheses Development:



**Figure 1** Conceptual Framework

## Theoretical Model

We will use multiple regression analysis to find out hypotheses. The common purpose of a multiple regression is to analyse and

evaluate the relationship between several explanatory variables and a dependent variable. The general formula representing this multiple regression is the subsequent.

$$SMI_t = \beta_0 + \beta_1 INF_t + \beta_2 NEER_t + \beta_3 FDI_t + \beta_4 MS_t + \beta_5 GDP_t + \beta_6 IR_t + \beta_7 EXP_t + \beta_8 DV1 + \beta_9 DV2 + \varepsilon_t$$

**Figure 2** Proposal Model

## Methodology

### Data Collection

This section will describe the data collection, So data will be collected from July 2005 to March 2014 in monthly form with a total of 105 observations .which includes Historical closing price of Shanghai Stock Exchange Composite Index and 8 macroeconomic variables data were obtained .Data of Shanghai Stock Exchange Composite Index is the dependent variable, whereas data of exchange rates (NEER), FDI, GDP, money supply (M1), inflation rates, currency policy dummy variable, export and interest rate are the independent variables.

In this paper, all the data from the China national data, Data sources valid.

### Tools

To study the relationship between the variables, Statistic software will be used.

The regression equation can be estimated, the important part of this research. Thus, it can reflect whether NEER may have an influence on Shanghai Stock Exchange Composite Index and how much the effect of examining their relationship.

Due the time series data to avoid the spurious regression, it is necessary to determine these data is stable. Namely, unit root test is an effective method before ordinary least square test (OLS). Therefore, Stationary data will be expected result of the following analysis. In the end, we will use the regression analysis (OLS).including Multicollinearity, Heteroscedasticity and Autocorrelation.

## Methodology

### 1. Unit Root Test

It is important to consider unit root test as it define the order of each integration for each series as well as to render the data stationary to test the effect of stationary on its property and behavior.

$$H_0 : \delta = 1 \text{ ( Variable is not stationary )}$$

$$H_1 : \delta < 1 \text{ ( Variable is stationary )}$$

**Figure 3** Hypothesis of ADF Test

The null hypothesis is reject if consists of negative value and significant diverse from zero. Meanwhile the accept of null hypothesis mean variable does not perform stationary and consist of unit root.

## 2. Multicollinearity

Multicollinearity occur when there are multiple predictors in a single model which

are correlated and give redundant information. The result can be misleading, so that the model can not necessarily significant. For this part, Examination of correlation matrix and the calculation of variance inflation factor (VIF) are used to detect Multicollinearity problem and identify the correlation between variables.

$$VIF = \frac{1}{1 - R^2}$$

**Figure 4** Variance Inflation Factors (VIF)

## 3. Ordinary Least Square (OLS)

The ordinary least square is a measuring tool that is employed to estimate unknown parameter in a regression model. This allowed the estimation of real population relationship between variables and detect for any existences of economic problem (Madhuchhanda & Mishra 2004). In this paper OLS test is carried out to understand the long run relationship among variables.

## 4. Heteroscedasticity

Heteroscedasticity test is to check on the fitting of a regression model via the behavior of standard deviation and samples variance. A time series regression consists of same variances of distribution. The existence of heteroskedasticity means that variance of distribution is not constant, there is diverse variances across the disturbance. On the other hand, it reflects homoskedastic if all the measurement are constant. White (1980) stated that heteroskedasticity influences the efficiency of estimated parameter and covariance matrix. This will cause misleading the result for hypothesis testing.

## 5. Autocorrelation

Autocorrelation can be classified as the measurement of correlation coefficient. The objective of autocorrelation is to determine the performance of data in a times series model. Durbin-Watson (Durbin & Watson, 1950) test is used to identify whether it has autocorrelation problem. It is also referred as a serial correlation or lagged correlation, a correlation between a series of number over a successive time interval.

# Data analysis

## Descriptive Statistic

The descriptive statistics analysis related to shanghai stock exchange composite index. This paper would put all the variables into this table shows total number of observation, mean value, median value, maximum value, minimum value and standard deviation of all the variables, these numeric figures will help to understand and data in proper manner. Descriptive statistics as below

**Table 1** Common Statistics of Variables

	SMI (Index)	EXP (RMB Billion)	FDI (RMB Billion)	GDP (RMB Billion)	INF (percent)	IR (percent)	MS (RMB Billion)	NEER (Index)	DV1	DV2
Mean	2579.23	277881.5	338641.7	28401.88	3.054286	2.78593	210241.1	99.2751	0.21048	0.43809
Median	2396.32	272790.3	330450.2	26723.13	2.700000	2.86000	212493.2	99.2500	0.00000	0.00000
Maximum	5954.77	319158.4	734129.2	58144.97	8.700000	6.91610	337291.1	115.630	1.00000	1.00000
Minimum	1083.03	254360.1	36663.61	2902.072	-1.80000	0.94450	97674.10	87.2400	0.00000	0.00000
Std.Dev.	948.110	199722.42	188543.9	11741.80	2.344594	1.21658	75158.78	8.13876	0.41558	0.49853
Observations	105	105	105	105	105	105	105	105	105	105

The table 1 showed that descriptive statistic of eight independent variable and one dependent variable.

### Unit Root Test

The unit root test is used to all variable applied in the model. ADF test is to test the stationary level of all variable. The table 2

reports the result of Augmented Dicky Fuller (ADF) test using intercept and trend ,The eight variables are found stationary at 5% levels at significant, The P-value less than 10% critical level.

**Table 2** The result of Augmented Dicky Fuller

	Intercept & Trend			
	Test critical	values	Level	p-value
D(lnSMI)	5%	-3.453601	-9.512519***	0.0000
D(lnFDI)	5%	-2.892879	-7.185485***	0.0000
D(lnGDP)	5%	-3.458856	-5.714068***	0.0000
D(lnINF)	5%	-3.459397	-4.507084***	0.0025
D(lnIR)	5%	-3.453601	-11.77050***	0.0000
D(lnMS)	5%	-3.453601	-11.96148***	0.0000
D(lnNEER)	5%	-3.454471	-3.882983**	0.0162
lnEXP	5%	-3.453601	-9.06290 ***	0.0000

\*p< 0.1 , \*\*p< 0.05, \*\*\*p< 0.01



## Diagnostic Testing

### 1. Multicollinearity

In this paper. There may be a correlation between the independent variables. And it might cause multicollinearity problem. The result of correlation of variables as follows

**Table 3** Result of Correlation Test of Variables

	lnEXP	D(lnFDI)	D(lnGDP)	D(INF)	IR	D(lnMS)	D(lnNEER)
lnEXP	1.000000	-0.160459	-0.059606	0.046243	0.003709	-0.021434	0.072606
D(lnFDI)	-0.160459	1.000000	0.314146	-0.046912	0.050903	-0.089270	0.080156
D(lnGDP)	-0.059606	0.314146	1.000000	-0.029169	-0.131351	0.138798	0.095147
D(INF)	0.046243	-0.046912	-0.029169	1.000000	0.095762	-0.049473	-0.161273
IR	0.003709	0.050903	-0.131351	0.095762	1.000000	-0.110274	-0.049766
D(lnMS)	-0.021434	-0.089270	0.138798	-0.049457	-0.110274	1.000000	0.118687
D(lnNEER)	0.072606	0.080156	0.095147	-0.161273	-0.049766	0.118687	1.000000

The table 3 result shows that there are have three pairs of independent variables are highest correlation coefficient value is 0.314146 (D(lnGDP and D(lnFDI)), 0.161273 (D(lnNEER) and D(INF)) and 0.138798 (D(lnGDP) and D(lnMS)). It is low than 0.8. So there is no multicollinearity problem in the model.

### 2. Description of the Empirical Model

After the unit root result. Next step is formulate the empirical model. Date from July.2005 – March 2014. The ordinary least square regression method will be use to research the significant of the relationship between Shanghai Stock Exchange Composite Index and the macroeconomic variable of the model.

**Table 4** Proposal Model

$$\begin{aligned}
 D(\ln SMI_t) = & \beta_0 + \beta_1 D(LNF_t) + \beta_2 D(\ln NEER_t) + \beta_3 D(\ln FDI_t) \\
 & + \beta_4 D(\ln MS_t) + \beta_5 D(\ln GDP_t) + \beta_6 IR_t + \beta_7 \ln EXP + \beta_8 DV_1 \\
 & + \beta_9 DV_2 + \varepsilon_t
 \end{aligned}$$

Where,

- $D(\ln SMI_t)$  : Natural logarithm of Shanghai Stock Market Index  
 $D(INF_t)$  : Inflation Rate  
 $D(\ln NEER_t)$  : Natural logarithm of Normal Effective Exchange rate  
 $D(\ln FDI_t)$  : Natural logarithm of Foreign Direct Investment  
 $D(\ln MS_t)$  : Natural logarithm of Money Supply  
 $D(\ln GDP_t)$  : Natural logarithm of Foreign Gross Domestic Product  
 $IR_t$  : Interest Rate  
 $\ln EXP_t$  : Natural logarithm of Export  
 DV1 and DV2 : dummy variable  
 $\varepsilon_t$  : Error term

**Table 5** OLS Regression Result of Empirical Model

	Parameter Estimate	Standard Error	Test Statistic	P-value
lnEXP	-0.115339	0.028151	-4.097174	0.0001***
D(lnGDP)	-0.020070	0.026084	-0.769425	0.4436
D(lnFDI)	-0.050429	0.032146	-1.568766	0.1201
IR	-0.010512	0.010947	-0.468344	0.6406
DV1	-0.008843	0.027109	-0.326189	0.7450
DV2	0.037353	0.026953	1.385868	0.1691
D(lnNEER)	4.751506	2.595373	1.830760	0.0703*
D(INF)	3.506549	1.325754	2.644946	0.0096***
D(lnMS)	0.764456	0.450428	1.697177	0.0930*

\*p< 0.1 ,      \*\*p< 0.05,      \*\*\*p< 0.01

R-squared :                      0.263544

Adjusted R-squared :      0.192274

Prob (F-statistic) :              0.000537

The table 5 result of the Ordinary Least Square (OLS) model found that  $\ln \text{EXP}$  and  $D(\ln F)$  variable are significant at 1%,  $D(\ln \text{NEER})$  and  $D(\ln \text{MS})$  variable are significant at 10%, The  $D(\ln \text{FDI})$ ,  $D(\ln \text{GDP})$ ,  $\text{IR}$ ,  $\text{DV1}$  and  $\text{DV2}$  are insignificant independent variables with p-value of 0.1201, 0.4436, 0.6406, 0.7450 and 0.1691

respectively, more than significant value of 10%, 5% and 1% .

### 3. Autocorrelation Test

According to the result of Ordinary Least Square test. We can know the Durbin-Watson statistics. Durbin-Watson statistics is available below:

**Table 6** Durbin Watson Test Model

Durbin-Watson statistics	N(sample sizes)	K(explained variable )	$d_L$	$d_U$
2.144953	105	9	1.357	1.741

Based on the table 6, The Durbin-Watson statistics was 2.144953, The 1% significant points of  $d_L = 1.357$  and  $d_U = 1.741$ .  $d_U = 1.741 < D-W=2.144953 < 2.259 = 4-d_U$ . So there is no autocorrelation problem in the model.

### 4. Heteroscedasticity (White Test)

**Table 7** The Result of the White Test

F-statistic	1.2407	Prob. F(37,65)	0.2219
Obs*R-squared	57.033	Prob. Chi-Square(37)	0.2608
Scaled explained SS	64.006	Prob. Chi-Square(37)	0.1044

Based on the result on table 7. The p-value is 0.2608 greater than the 0.05 alpha value. There is no heteroscedasticity problem in the model.

## Discussion and recommendation

### Implication of the Research

This paper provided the analysis and study of Shanghai Stock Exchange Composite Index movement. From the finding that are found in this thesis indicate that a favorable portfolio investment can be made through the in-depth analysis on the trend of current stock market such as exchange rate (NEER) inflation rate,

export ,money supply. This served as a guideline for China investors who interested to invest in shanghai stock exchange composite index. Based on OLS result from findings, Only have the exchange rate (NEER), export, inflation rate and money supply have a significant at 90% and 99% confidence level with shanghai stock exchange composite index.

The currency policy did not affect shanghai stock exchange composite index. But the money supply and inflation rate as the currency policy transmission mechanism

effect on shanghai stock exchange composite index. Currency policy by using dummy variables to influence the stock market is also a great possibility. it will affect the stock market.

## Discussion of Major Findings

### For exchange rate (NEER).

The ordinary least square (OLS) result shows the relationship between NEER and stock Shanghai Stock Exchange Composite Index has a positive significant, This result found with previous research by Aggarwal (1981) and Hasanzadah and Kiavand (2012) investigated there is positive between the nominal effective exchange rate (NEER) and stock market. Besides, Beer and Hebein (2008) believe thought used the EGARCH to examine the NEER have a positive significant effect on the stock market.

**For inflation rate,** The finding indicates that there is significant positive relationship between the growth rate of inflation and Shanghai Stock Exchange Composite Index. Based on the previous research. Li Chun, Luo Jian Mei and Yang Zhi Bing (2001) and Xu Bing, Ni Yue Yang (2006), Maku and Atanda (2010) and While Kibria, et, al (2014) results shows the inflation rate variable have a significant positive impact on stock market.

**For money supply,** The result shows there is statistically significant positive relationship between money supply and Shanghai Stock Exchange Composite Index. Based on the previous research. Maysami, Howe and Hamzah (2004), Al-Sharkas (2004), Brahmasrene and Jiranyakul (2007), SOHAIL, et, al (2009) and Maysami and Koh (2000) examined there is significant positive relationship between the money supply and stock market.

## Limitations of the Research

The limitations is sample size is not large in this research. A smaller sample size may be susceptible to error and misleading. For qualitative research. The larger sample size will have a highly probability of detecting a statistically significant result. The last limitations is use the time series data but not panel data. Because in this research. Based on China the result conducted only considered as case. While other countries may have their background, political factors and unique status that will directly effect the related stock market. In this research. The result is only useful for the china investor.

## Implication of the Research

This paper provided the analysis and study of Shanghai Stock Exchange Composite Index movement.

Based on OLS result from findings, for other macroeconomic variable, Exchange rate (NEER) effects shanghai stock exchange composite index. This is the most important finding of this thesis.

The money supply as transmission mechanism of currency policy and effect on shanghai stock exchange composite index, It is implemented increase or decrease money supply in the economic market by government. The stock market investor should be take attention more of any new currency policy. It will affect the stock market.

The currency policy did not affect shanghai stock exchange composite index. But the money supply and inflation rate as the currency policy transmission mechanism effect on shanghai stock exchange composite index. Currency policy by using dummy variables to influence the stock market is also a great possibility. It will affect the stock market.

## Recommendations for Future Research

The recommendation for future research to increase the sample size. For example fifteen years or twenty years.

And is encouraged to carry out their study by using panel data replace using time series data. Because the panel data can provides multiple observations for all variable in sample. the panel data can enhance the efficiency of an econometric

estimate and obtain larger number of data point.

Last recommendation for future research is need to study the impact of currency policy on the relationship between NEER and Shanghai Stock Exchange Composite Index, Based on previous search data, In this regard just have a little information ,The future researcher can increase investigate in this part. Maybe there will be a good find and results.

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# Thai culture and its effects on organizational engagement in Thai privately held companies

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## Abstract

The purpose of this study is to understand how Thai culture, in accordance with Hofstede's cultural dimension theory, affects job satisfaction and the relationship between job satisfaction and organizational engagement. Qualitative method is used with in-depth interviewing technique consisting of open-ended questions for the data collection method. Results revealed that seniority role plays both positively and negatively and the sense of Kreng-Jai is a crucial factor. Results suggested that the cultural dimensions of Collectivism, Uncertainty Avoidance, and Femininity were positively related to job satisfaction, whereas the dimension of Power Distance was negatively related to job satisfaction. The collectivistic culture of the Thai society results in the job satisfaction of the majority of the participants because of factors such as existence of teamwork, great relationship with coworkers, and abilities to adapt and fit within the workplace. Power distance and seniority had positive influence as having seniority allowing coworkers to work together as brothers and sisters. On the other hand, power distance may have a negative influence on job satisfaction. With uncertainty avoidance, respondents reported that tasks could be achieved with the clear goal and directions. The dimension of femininity of Thai culture noted the importance of a person's contributions and recognitions had a positive impact on job satisfaction. Findings also show that job satisfaction has no direct relationship with organizational engagement.

**Key words:** Thai Culture / Job Satisfaction / Organizational Engagement /  
Hofstede's Theory



## Introduction

Various previous studies have examined on the relationship between job satisfaction and organizational engagement. This paper aims to further study how the relationship between the two variables can be affected by the national culture; focusing on the national culture of Thailand. In Thailand, especially in Thai privately held companies, it can commonly be observed that recent graduates and newcomers tend to stay at a workplace for only a short term. As they become more related and settled with their job activities, the degree of commitment and willingness to perform drops. Additionally, experienced employees are on the look out to advancing their professional careers at other organizations. Due to low job satisfaction, which in turn affects the level of organizational engagement, employees in Thai privately held companies do not portray attitudes and or behavior of being emotionally engaged with the organization. Problems that these companies are experiencing as a result include the decline in performance, “human capital, or the retention of knowledge in organizations” (Kwantes, 2009, p. 197) and the rise in absenteeism and turnover rate. Then comes in the influence of the national culture. Employees in Thai privately held companies in turn are experiencing challenges with the working process, decision making ability, social acceptance, and communication within the workplace. To explain and understand how job satisfaction is influenced by how the Thai society is shaped; thus relating to the strength of organizational engagement in Thai privately held companies in Thailand, Hofstede’s cultural dimension theory and Herzberg two-factor theory are chosen and applied.

The purpose of this study is to analyze and understand the following questions:

*How does Thai culture play a major influence in a workplace?*

*How does Thai culture relate to job satisfaction, which leads to organizational engagement?*

This study addresses the effect of Thai culture on job satisfaction, which significantly impacts the relationship between job satisfaction and organizational engagement. Interviews of employees working in Thai privately held companies in Thailand will be carried out to analyze whether job satisfaction leads to higher organizational engagement. Interviews of 15 respondents from Company A are carried out for data collection to attain in-depth information for analysis regarding their work experiences. Company A, one of Thailand’s biggest retailers, is chosen to represent Thai privately held companies. Both former and current employees are selected for one-to-one interview to understand the previously stated purpose of the study.

The objectives of this research are a) to explain how the role of Thai culture impacts Thai society. b) to observe how certain roles of Thai culture affect the relationship between job satisfaction and organizational engagement in Thai privately held companies in Thailand. c) to study if those with higher job satisfaction are more engaged in Thai privately held companies in Thailand.

Once the role that Thai culture plays on the relationship between job satisfaction and organizational engagement is understood, both the employees and the companies will benefit. By having high job satisfaction and high organizational engagement, companies will see a decline in absenteeism and turnover rate and a rise in performance and efficiency of the

employees. The companies will also gain the benefits of having skilled and experienced employees who are committed to the organization. Engagement also influences how employees voice ideas, suggestions, and concerns, which also “result in improved individual performance and increased organizational profit and return on investment” (Albrecht, Bakker, Gruman, Macey & Saks, 2015, p. 10) of the company. Moreover, this group of employees will have confidence in the organization that they helped build and trust that the organization will provide them with security and growth. With organizational trust, more positive work outcomes will result.

## Literature review

### Culture

Culture “is the system of ideas, values, beliefs, knowledge and customs which are transferred from one generation to another in society” (Runglertkengkrai & Engkaninan, 1987, p. 9), either “transmitted, learned, or shared” (Komin, 1990, p. 683). The national norms of Thailand focus on “the harmony of the group over the needs of the individual” (Andrews, 2001, p. 154), being “much more relationship-oriented than task oriented” (Runglertkengkrai & Engkaninan, 1987, p. 9). For Thais, social recognition is the ultimate goal for life’s success. With the addition of Thai people being respectful and obedient to authority and status-orientated, the factors of face-saving and “kreng-jai” (being overly considerate of others) also come into play. To maintain harmony, Thais tend to avoid criticisms and confrontations. Thais are raised and taught at a young age to obey and respect authorities. To talk back and or correct those of higher power or seniority

are seen as a major sign of disrespect and are most often considered as unacceptable. Thailand also has a high context culture, meaning that it requires the interpretations of body language and expressions. All of the aforementioned tie back to the aspect of being social-oriented and striving for a sense of belonging.

All the behavior, views, and beliefs of a culture are difficult to change; and if changed, they will not be completely changed. Therefore, the study is not to change the behavior of the group of employees in Thai privately held organizations. This study, however, will focus on the relevant dimensions of Hofstede’s theory and how they influence organizational engagement in Thailand.

### Hofstede’s Theory

According to Hofstede, national cultures play a vital role in shaping people’s values and attitudes in a workplace. “Thai culture expresses relatively high needs to ‘avoid uncertainty’, a high level of ‘social collectivism’, and ‘high power distance.’” (Andrews, 2001, p. 153) and ranks high on femininity.

#### 1. Power Distance

The term can be understood as the power gap between a supervisor and his or her subordinates. It is the “degree of inequality of power between a person at a higher level and a person at a lower level” (Harvey, 1997, p. 133). A rigid hierarchical system will have greater power distance. Thailand has a class system and “a culture where the qualities of age and seniority - opposed to performance and knowledge - remained paramount” (Andrews, 2001, p. 164). With the dimensions of protecting face, respect, and obedience, and class difference and social ranks in Thailand, the degree of power distance in Thailand will be extremely difficult to change. This

affects how employees show respect for authority. Feeling a lack of autonomy, the freedom, and responsibility over ideas, decisions, etc. due to power distance and face-saving, along with refusing to disagree and confront superiors, will have an impact on job satisfaction.

## **2. Collectivism**

Thailand is a collectivistic society, where individuals are more relationship-oriented. Developing and nurturing relationships with co-workers are crucial, as well as blending in and feeling accepted within the workplace, and they greatly impact employees' job satisfaction. Since Thailand has a collectivistic culture, working as a team where employees can feel their contributions to the organization's success has a strong and positive relationship to job satisfaction. Previous study suggested that "organizations operating in more collectivistic cultures should use teams as a means of not only getting work done but of also increasing employees' sense of job satisfaction" (Andreassi, Lawter, Brockerhoff & Rutigliano, 2014, 67). Also, unlike social-oriented employees, "the task-achievement oriented subordinates do not please the boss, for they are often seen as hardheaded, disobedient, disrespectful, unhelpful, and inconsiderate" (Komin, 1990, p. 699), all of which are also on the contrary to the Thai culture of being respectful, considerate, and non-confrontational. When combined with rigid hierarchy, the result is an unfavorable career path for this group of task-oriented employees within the organization.

## **3. Femininity**

Unlike masculine cultures that are "oriented toward competition, achievement, assertiveness, and material success" (Noypayak & Speece, 1998, p. 348), feminine cultures emphasize on feminine gender characteristics such as

nurturing, caring, and patience. "Oriented toward cooperation, relationships, modesty, and quality of life [...] Thailand is strongly on the feminine side" (Noypayak & Speece, 1998, p. 348). Organizations operating in feministic cultures "place more importance on socioemotional career satisfiers, such as recognition [...] Feminine cultures place more emphasis on individual's contribution to society and value other's recognition of work well done. [...] more concerned with their relationships with managers in the organization, and would value recognition" (Andreassi, Lawter, Brockerhoff & Rutigliano, 2014, p. 60). To achieve job satisfaction, it is crucial for employees to receive recognition that involves social interactions for it reflects back to the importance of being socially accepted and acknowledged by others.

## **4. Uncertainty Avoidance**

Thailand has low uncertainty avoidance, where people are uncomfortable with ambiguity. Uncertainty avoidance is defined as "the extent to which members of a society feel threatened by uncertainty or unknown situations (Hofstede, 1980)" (Greece, p. 233). To minimize uncertainty, rules and regulations are implemented. By relying "more on procedures and rules to exert control" (Andreassi, Lawter, Brockerhoff & Rutigliano, 2014, p. 59) this means the need of having a top-down system in place, which also "has been observed to be related to communication inflexibility in organization" (A p. 59) that also affects employees' job satisfaction.

## **Job Satisfaction**

The level of job satisfaction is influenced by Hofstede's cultural dimensions. Job satisfaction is "viewed by different stakeholders as a core indicator of overall organizational functioning and

performance” (Karanika-Murray, Duncan, Pontes & Griffiths, 2015, p. 1019). According to Herzberg’s two-factor theory, job satisfaction is built on foundation; meaning that the basic needs, or the hygiene factors that “include company policy, supervision, relationship with supervisors, work conditions, relationship with peers, salary, personal life, relationship with subordinates, status, and job security” (Ruthankoon & Ogunlana, 2003, p. 334), must be met prior to advancing on to the motivational factors that “operate only to increase job satisfaction” (Ruthankoon & Ogunlana, 2003, p. 334), which include “achievement, recognition, work itself, responsibility, advancement, and possibility of growth” (Ruthankoon & Ogunlana, 2003, p. 334).

The strongly hierarchical system of Thai privately owned organizations puts strict limitations to employees’ “responsibility or freedom to make decisions” (Ruthankoon & Ogunlana, 2003, p. 334). Autonomy is required to make employees know and feel that they have ownership for their tasks. Employees want “to be given clearly defined tasks with identified outcomes and measures, and the freedom to pursue those goals how they so choose” (Blattner & Walter, 2015, p. 124). Through empowerment, employees feel encouraged to make decisions on their own with the existing resources that the company provides. To create trust and empowerment is even more difficult in Thai privately owned organizations where power distance is high.

Additionally, possibility of growth means “the chance that a person can be promoted, [...] learn new skills or advance” (Ruthankoon & Ogunlana, 2003, p. 334) forward. Since Thai culture puts an emphasis on seniority and age rather than skills and talents, employees with potentials are left unrecognized regardless

of their abilities. This becomes an obstacle for this group of employees’ opportunity for self-development and achieve career success; thus preventing them from “working hard since their promotion is based on years of work instead of the level of achievement” (Swierczeck & Onishi, 2003, p. 199).

Furthermore, “most significant impact on job satisfaction are accomplishment and recognition” (Andreassi, Lawter, Brockerhoff & Rutigliano, 2014, p. 67). Being a collectivistic culture, Thai employees especially want to feel valued by their supervisors for performing their job well, which will result in employees’ job satisfaction.

Once the level of job satisfaction is increased, employees become more productive, more involved, less absent, more committed and more engaged. Since job satisfaction has a direct relationship with organizational engagement, the high level of employees’ job satisfaction within a workplace also results in the high level of employees’ organizational engagement.

## Organizational Engagement

Job satisfaction is related to organizational engagement. Organizational engagement “is usually referred to as an emotional and intellectual commitment to an organisation” (Sirisunhirun & Dhirathiti, 2015, p. 73). With organizational engagement, research has also proven that it “is positively associated with increases in performance over time” (Albrecht, Bakker, Gruman, Macey & Saks, 2015, p. 21) for the employees in turn positively impact the organization’s success. It is a crucial factor that determines whether or not employees would like to stay onboard with the organization for many years to come, “the desire to remain with the organization (loyalty)” (Yousef, 2000, p. 6). When

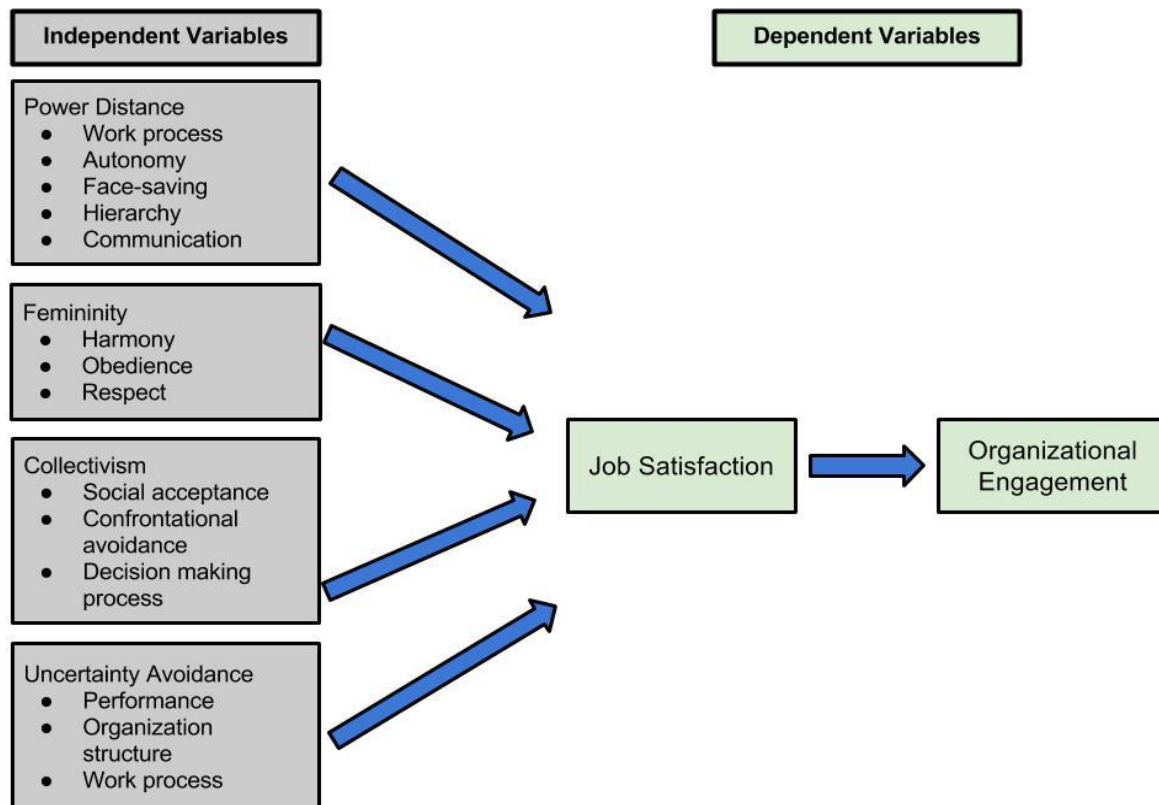
employees become citizens of the organization, they become fully engaged with the organization and its goals and values. "Past research has indicated that [...] there is a positive relationship between organizational commitment and both job satisfaction and performance" (Yousef, 2000, p 11). Being engaged reflects the attitudes and the degree of employees' willingness to go above and beyond, putting in the extra effort for the company. Therefore, this develops employees' long-term loyalty to the organization; resulting in positive outcomes such as low absenteeism and turnover rate and high efficiency.

### Framework

As illustrated in the chart below, the independent variables that affect organizational engagement include power distance, femininity, collectivism, and uncertainty avoidance - dimensions from Hofstede's theory. With high power distance means more rigid hierarchical system, complicated work process, and low level of

autonomy. Thai culture factors of face-saving and "kreng-jai" are also strengthened by greater power distance, which in turn, influence communication process within the workplace and negatively affect job satisfaction. Secondly, high level of femininity influences how employees in Thai privately held companies act and behave, for they are concerned about workplace harmony and being obedient and respectful. This leads to low level of job satisfaction for employees' opinions, feelings, wants, and needs are constrained. Thirdly, collectivism makes employees feel the need to be accepted and recognized by the society at work; leading to higher confrontational avoidance, lower desire to make decisions in fear of being disliked, and thus lower job satisfaction. Lastly, with low uncertainty avoidance, Thai employees are more comfortable when rules and regulations exist within the workplace; hence the reason for a hierarchical system. This impacts work process, organization structure, and employees' performance that are all associated with job satisfaction. With all factors influencing job satisfaction, organizational engagement is also highly affected, for job satisfaction has a direct relationship with organizational engagement.





**Figure 1** Conceptual Model of Relationship between Thai Cultural Dimensions and Job Satisfaction and Organizational Engagement

## Research methodology

Company A is chosen to represent Thai privately held organizations in Thailand. Company A is one of Thailand's biggest retailers. The majority of employees employed are of Thai citizen and a very low number represents expatriate workers. Respondents from Company A chosen for the interview are segmented into three different groups: former employees, newcomers, and employees of one year or longer. Respondents are also only selected from Company A's Head Office. All are also of Thai nationality and were born and raised in Thailand. This ensures that all respondents are exposed to and influenced by the national culture. The in-depth interviewing technique is adopted as the data collection approach because the method is best for surveying employees when it comes to sensitive topics as this,

and the technique is best for understanding thoughts, feelings, attitudes, and motivations. Open-ended questions are used to study and analyze respondents' stories and experiences. This method is adapted from the previous studies of Noypayak & Speece(1998) and Swierczek & Onishi (2003). The sample size is 15 respondents from Company A's Head Office

### Instruments

Interview questions on culture and job satisfaction are adapted from the previous studies of Swierczek (1998), Joiner (2001), Eskildsen, Kristensen & Antvor (2010), Komin (1990), Noypayak & Speece (1998), and Saratun & Rungruan (2013). Interview questions on job satisfaction and organizational engagement are adapted from the previous studies of Yousef (2001),

Sirisunhirun & Dhirathiti (2015), and Rungruang & Tangchitnob (2010).

## Data analysis and results

### Findings

The collected data from 15 participants are analyzed to study the relationship of job satisfaction and organizational engagement; whether or not participants with higher job satisfaction have higher organizational engagement. The interviews are conducted via video or audio call or face-to-face. The first part of the interview questions is asked to help examine factors including collectivism, uncertainty avoidance, femininity, and power distance; and how each dimension influences job satisfaction. Questions that pertain to job satisfaction are then asked to help study the level of job satisfaction of the participants. Lastly, the final part of the interview aims to help examine the level of organizational engagement.

#### 1. Culture in Workplace

Upon the examination of the participants' attitude toward the Thai culture, most participants agree on the big role seniority plays, both positively and negatively. Responses also reveal that two participants show frustrations about a lack of professionalism, how

*"everything is slow and not in rules,"*

which impact employee's performance.

*"I don't think it's professional. [...] Need to change if company wants to go far."*

Eight participants see the sense of "kreng-jai" as a crucial factor –

*"When you want to say to someone, to speak to someone, you can't stand up for that. [...] you know it's like the*

*Thai culture of the "kreng-jai" we cannot say it out. I think it's the main obstacle for the working process."*

Negative attitudes that associate with Thai culture thus include kreng-jai, the lack of professionalism, rules and regulations, and face-saving. On the other hand, for the Thai culture,

*"they have a hierarchy. They have an age. They have like experience. [...] you should know manners, [...] and it's like we respect the older not like in the Europe or America."*

Positive attitudes toward the Thai culture thus include manners, respect, family-oriented, and how Thais are courteous. Though most participants show stronger feelings and emotions toward the cons, only three participants do not feel fit in the Thai culture while the rest adapts to fit in. Being able to adapt and fit in relates to the Collectivistic aspect of the importance of being a part of the community.

#### 2. Relationship of Collectivism and Job Satisfaction

The dimension of Collectivism proves to have a positive relationship with job satisfaction. The Collectivistic culture of the Thai society results in the job satisfaction of the majority of the participants because of factors such as existence of teamwork, great relationship with coworkers, and abilities to adapt and fit within the workplace. Regarding teamwork, 14 out of 15 participants prefer to work as a team. They all share the same view that working as

*"a team contributes more than each individual put together" and that "to achieve success, teamwork is very important."*

When asked why, one mentions



*"maybe it's a culture, a Thai culture. We live in a society. We always do in a group."*

With teamwork, two participants also agree that it facilitates the working process and expedites the learning process of an individual through the sharing of ideas and experiences and communication within the team. However, one participant prefers

*"working alone because more authority in making decisions and I learn more as well."*

Moreover, when problems arise in the team, the majority of the participants say they would choose to confront, four out of 15 participants would choose to avoid confrontations, and one participant says yes to confronting someone of the same level, but it would be impossible with people of higher position.

### **3. Relationship of Power Distance and Job Satisfaction**

To continue focusing on power distance and seniority, the dimension of Power Distance shows to have a negative influence on job satisfaction. Two view seniority as a positive influence, seven see it as a negative influence, and three believe there are both pros and cons to it.

*"You definitely find yourself thinking twice or more umm talking to people who are older than you, who are holding a more senior position than you."*

For the pros, having seniority allows coworkers to work together as brothers and sisters, so when someone makes a mistake, any wrongdoing is not taken too seriously and treated too harshly. It's also

*"great to have someone to guide you; that's how you learn," and "the senior people will take care of you sometimes."*

On the other hand, participants see that *"seniority made it very difficult"* and also causes a sense of *"kreng-jai"* that hinders work and how one decides to confront a problem or not. With seniority, one cannot be too opinionated and express his or her ideas to the fullest,

*"We didn't have a say," for "if they were there before me, most people would listen to them more than rather take in new ideas."* Also, *"how you talk, you can't just be so straight up [...] because they think you're being rude and aggressive when you're not."*

Besides the aforementioned, seniority also affects employee's recognition and advancement according to the participants. One who is older but shows no performance outshines a younger coworker and nothing can be done about that.

*"การตอบแทนต่างๆ มันไม่เท่ากันเพราะ seniority อันนี้แหละเขาบอกว่าเขาอยู่มานานกว่า เขาก็ควรจะไ้มากกว่าซึ่งในมุมมองของเรา...เราก็อยากทำงานให้มันดีมันก็รู้สึกไม่ okay"*

Translates into how the outcome and recognition is not equal due to the seniority system. Participants feel discouraged to perform at work because a person who simply has been at the workplace for longer years will get higher level of recognition and benefits.

### **4. Relationship of Uncertainty Avoidance and Job Satisfaction**

There exists a positive relationship between Uncertainty Avoidance and job satisfaction. In response to the set of questions that applies to uncertainty avoidance, 12 out of 15 participants feel nervous, confused, lost, and worried about ambiguity. One mentions about not wanting to take any risks and others say,

*"you can't work and do your job," "I need to see the goal to see something in the end. It affects your efficiency at work and job satisfaction because you're confused."*

However, according to 13 out of 15 participants, tasks are assigned by the supervisors with a direction and goals to be achieved. Therefore, the level of job satisfaction is not negatively affected in this case for tasks are assigned to avoid ambiguity within the organization.

### **5. Relationship of Femininity and Job Satisfaction**

The dimension of Femininity of Thai culture that notes the importance of a person's contributions and recognitions has a positive impact on job satisfaction when recognitions are given. In regards to recognition, eight participants highly value their contributions and recognitions. They say that recognition is important because it offers feedbacks and judges how much is needed for self development and improvement. By not being recognized, thoughts range from

*"it kills your motivation" to "if you do everything and no one sees you do it, it kind of suck."*

Three participants do not value recognition, with two out of the three saying that the recognition belongs to the team and not himself or herself alone; and the rest do not care or sometimes value recognition.

Furthermore, a job well done is rewarded with nothing according to three participants, with private verbal compliments according to seven participants, or with more tasks, money, or a promotion according to three participants. The other two participants say that a job well done is rewarded publicly via written e-mail. With the e-mail that acknowledges an employee's success

across the company, it created jealousy and attracted too much attention from other coworkers. Those who feel worried give comments such as

*"But how about her other subordinates?!"* and it *"will create a little conflict behind the back."*

### **6. The Level of Job Satisfaction**

In examining job satisfaction, 13 out of 15 participants are satisfied with their jobs and two are not. Regarding the responsibility that comes with the job, four participants have no responsibility and ownership, for

*"most of the work would come, would not be our idea. It would come from our manager or higher up"*

and how being just a specialist does not give one much responsibilities and having someone

*"older than me, so I can't do fully responsibility on the job."*

One mentions low ownership because *"they don't trust your work."* However, seven participants say they have lots of responsibilities and 100% ownership of their tasks.

Results show that the majority of participants consider the work environment a good, family environment to be in, with good friends, colleagues, and bosses.

*"The work environment is quite ok. It's normal for a big company."* where *"people are humble and friendly and busy."*

Three participants, on the other hand, say,

*"The place could be better than this"* and that *"people were very negative"*

and the loud environment quickly turns quiet when the boss arrives. One mentions how the environment varies depending on the team and the direct bosses.

Upon the examination of the relationship with coworkers, 14 out of 15 participants reveal that they either *“get along well enough to work with them”* or develop strong bonds outside the workplace with coworkers. Some examples include:

*“I spend a lot of time with them especially when we finish the work and go to dinner and activities together,” “we go together everywhere,” and “we would always get together outside of work as well. Yea, I’d say it’s quite good.”*

All but one participant feel that they have a good relationship with their managers and that concerns, ideas, and feelings that are work-related can be fully communicated to a certain extent.

*“It’s a good working relationship, but I wouldn’t call it a close personal relationship,”* where the *“relationship is more like boss and subordinate.”*

Two participants feel uncomfortable to talk about personal issues or make jokes due to the age difference and the sense of “kreng-jai” and how the positions

*“have a long distance especially I’m a specialist and hers is like AVP.”*

However, two out of the 14 participants, with good relationship with the boss, mention that their communication can be carried out on an equal level.

For one to get ahead on this job, responses include experience, performance, ability, confidence, talent, heart, passion, success, attitude, initiation, responsibility, seniority, length of work, willingness, dedication, trust, and connections as the main factors that determine an employee’s advancement. Willingness, dedication, and seniority are the most-mentioned factors, followed performance.

Upon the examination of how much can one fully express oneself at work in regards to the suggestions of new ideas or

initiation of new projects, six participants say it cannot be done fully, other six participants say it can be done fully, and four participants agree on how one

*“was able to freely express [one’s] ideas, but umm..not all those ideas were put into action,”* how one *“can suggest ideas, but accept or not is another thing.”*

Furthermore, four out of 15 participants see none or not much growth and development for him or her because it does not only involve just work and

*“I can’t see a long-term kind of thing in terms of promotion because I got [undisclosed name] who is older than me.”*

However, the rest of the participants do see lots of potentials for growth and development.

## **7. Level of Organizational Engagement**

Last but not least, the next set of questions is to examine organizational engagement. From a rating of 1 - 6, 1 being not proud at all and 6 being extremely proud, the average number of participants rate their pride in their jobs as 5 or 6. One participant rates his pride in his job as 3, six as 4, five as 5, and three as 6. Also, when asked to evaluate their performance compared to their coworkers, five participants say that they perform better than some of their coworkers; five participants say that their performance is average or equal compared to others; one say that she performs lower in comparison to her coworkers; two participants say that they try harder and put more effort; and two participants say that they cannot compare their performance to their coworkers due to different job roles they are responsible for.

All participants are willing to do the extra effort beyond what the job requires. Two participants agree on how they are willing to put in the effort for

*"if I really like it, I'll go more and above."*

One is willing because it makes herself happier, and one is willing to go the extra mile for the success of herself saying, *"I'm committed to my result"* and to drive the efficiency of *"myself"*. Regarding the rest of the participants, they are willing because they want to facilitate the working process or have passion for what they do. However, organizational engagement does not exist because participants are not emotionally engaged in the company. Extra efforts are made to benefit the participants themselves and the participants do have the desire to remain the company in the long run.

Three participants talk negatively about the organization to others whereas eight participants talk positively. Four participants are neutral, stating both the pros and cons of the organization to others. Also, all participants except for the one that also talks negatively about the organization to others do not feel regret or are glad about joining the organization. Current employees still work here because they see their job as a promising career path, they have no other job offer, they believe they can fix the problem, they have a good team, and they desire to learn;

while former employees' reasons for leaving the organization are the lack of career path and new job offers. To the participants, the company is either a learning place, a place to acquire connections, a big step in life, life's valuable experience, simply a workplace, or

*"can't separate company from my life and DNA."*

Table 1 below summarizes what participants think how their dedication to the company benefits them and the company in return. Some participants name more than one benefit. Each ● represents the number of time each benefit is mentioned. With ● ● ●, knowledge, and how to deal with grownups and culture are the highest mentioned by participants for how the company benefits them. Secondly with ● ●, participants mention that money, acknowledgement, value and long-term goals, and project implementation as the benefits to self and company. Lastly with ●, participants mentioned only once about pride, experience, feedback, sales, part to drive company, customer satisfaction, reputation & image, staying up to trend as benefits to themselves and to the company.

**Table 1** Benefits to Self and Company Due to Employee's Commitment

Self		Company	
Pride	•	Sales	•
How to deal with grownups & culture	• • •	Nothing	• •
Knowledge	• • •	Value & long-term goals	• •
Money	• •	A part that drives the company	•
None	• •	Project implementation	• •
Acknowledgement	• •	Customer Satisfaction	•
Experience	•	Reputation & image	•
Feedback	•	Staying up to trend	•

## 8. Relationship between Job Satisfaction and Organizational Engagement

Lastly, 13 out of 15 participants are satisfied with their jobs. However, only eight out of 15 participants rate 5 or 6 for the level of pride in job. Among the group of eight participants, two participants are no longer working for the organization, one participant does not see Company A as her organization, and one participant is at the organization to acquire experience and self development while only two participants see the gap and the opportunity for the company to grow and desire to push the company toward greater success, and one sees the company as “one big step” where a substantial amount of knowledge can be learned. This shows that having job satisfaction does not lead to organizational engagement.

## Discussion

From the aforementioned findings, it is obvious that Thai culture plays an important role in Thai society. It can be seen that each of Hofstede's cultural dimension either positively or negatively affects job satisfaction within the workplace. Also, results show that high job satisfaction does not lead to high organizational engagement within Company A.

## 1. Relationship of Collectivism and Job Satisfaction

There exists a positive relationship between Collectivism and job satisfaction. For Collectivism, results are consistent with previous studies that state that “Thai subordinates are more team oriented” (Swierczek & Onishi, 2003, p. 207), and that “social relations are of utmost importance” (Komin, 1990, p. 696) to Thais. Even when faced with ambiguity, though most are nervous about taking risk and are uncomfortable with uncertainty, they still remain positive toward the situation for “[they] still have a team.” This shows how having a good supporting system and relationship with the team, along with teamwork, are positively related to job satisfaction. Additionally, because Thai culture is a collectivistic culture, though the majority of the participants disagrees with or has negative feelings toward Thai culture, they still accept and try to adapt to the social norms in order to be accepted within the workplace.

Also, because Thai culture is a Collectivistic culture, Komin (1990) and Noypayak & Speece (1998) mention how “Thai people have a strong avoidance to conflict” in order to maintain harmony and good relationship with others. However, surprisingly, findings argue with previous studies and show that the majority of the



participants choose to make confrontation rather than avoiding confrontation to resolve an issue. The majority of the participants prefer to face and discuss problems within the team, which greatly contradicts previous studies of Thai culture of maintaining harmony, face-saving, and being social-oriented.

## 2. Relationship of Uncertainty Avoidance and Job Satisfaction

Results also are consistent with Uncertainty Avoidance of previous studies that state how “Thai subordinates expect more opportunities and direction” (Swierczek & Onishi, 2003, p 204). Though participants prefer to have clear goals and directions regarding their tasks, the existence of ambiguity does not negatively influence participant’s job satisfaction because of the strong support system from the team within the workplace. Participants feel that belonging to a team with great teamwork triumphs the negative aspects of job uncertainty. Thus, Uncertainty Avoidance is positively related to job satisfaction because of the influence of the high Collectivistic culture of the Thai society.

## 3. Relationship of Power Distance and Job Satisfaction

Findings for the dimension of Power Distance show that seniority system associated with Thai culture plays the most influential role in and has a negative impact on job satisfaction. The growth factor within the organization is negatively affected by seniority. Results agree with previous studies that say “seniority system discourages employees, especially the younger generation, from working hard since their promotion is based on years of work instead of the level of achievement” (Swierczek & Onishi, 2003, p. 199) and how “the qualities of age and seniority - opposed to performance and knowledge - remain paramount” (Andrews, 2001, p.

164) in the Thai culture. Participants share the same attitudes of how

“เด็กไฟแรงโดนบัง” or “qualified younger generations of newcomers are discriminated and overlooked,” how seniority leads to “kreng-jai,” and amongst various other growth obstacles due to seniority. Though as a whole, participants are satisfied with their jobs, there is a negative impact on job satisfaction when solely the factor of seniority is focused,

*“Okay happy, but just not happy when I compare with other especially with those of higher seniority” and how “they will have more opportunity and all that.”*

However, the seniority system also has a positive influence. A finding also proves to be consistent with Komin, 1990, that states that Thai culture with strong hierarchical systems can result in Thai employees being motivated to work devotedly for manager whom they respect as one participant mentions how she would decide to leave Company A should there be a change in her team and boss.

Moreover, results show that there is very little power distance between managers and subordinates within the organization communication wise. All but one participant can freely communicate and share ideas and concerns with supervisors. The findings thus argue with a study that says “normally, Thais will not express their own feelings if they contradict the boss, especially in a large organization like SCG. If the boss does not want to hear about it, they keep quiet even though they may not feel satisfied” (Noypayak & Speece, 1998, p. 355). However, even though there is little Power Distance within the workplace, seniority still leads to “kreng-jai” and

*“sometime you have to keep your mouth shut”*

which makes communication within the workplace more difficult. Within the organization,

*“it’s like everything, every process, everywhere you go. The way I talk to each team [...] the way each team cooperates with others.”*

#### **4. Relationship of Femininity and Job Satisfaction**

Furthermore, regarding the dimension of Femininity, results agree that “Thai consider prestige and social recognition as goals for success in life” (Komin, 1990, p. 697) and that “they prefer recognition from their superiors” (Swierczek & Onishi, 2003, p. 208). With the majority of participants highly value their contributions and recognitions, recognitions from managers and the company mean support and care. It can therefore be said that Femininity is positively related to job satisfaction.

#### **5. Relationship of Job Satisfaction and Organizational Engagement**

Regarding job satisfaction, 13 out of 15 participants say they are satisfied with their jobs due to the positive effects of the dimensions of Femininity, Collectivism, and Uncertainty Avoidance. The negative variables such as the seniority system from the dimension of Power Distance that impacts growth potential within the organization are also mentioned, but job satisfaction is still resulted. This is consistent with Ruthankonn & Ogunlana (2003) study that mentions how relationship with supervisors and coworkers and work conditions are crucial to achieve job satisfaction; however, results are also inconsistent with the study in how advancement, possibility of growth, and salary are crucial to achieve job satisfaction.

However, the possibility of growth and career advancement comes into play when

it relates to organizational engagement. Participants who do not see much potential in career advancement do not feel attached to or choose to leave the company, even with high job satisfaction. This makes growth an important factor that affects employee’s decisions to stay with the organization the most. Therefore, the overall high job satisfaction does not have a direct influence over organizational engagement. With growth and development as the main influence, organization engagement is difficult to achieve in Thai culture as well because growth is highly affected by seniority system. Moreover, results disagree with Rungruang & Tangchitnob (2010) study, for most participants are willing to do more than their job required, but they do not show strong emotional attachment to the organization. The willingness to perform is self-oriented or self-success-oriented. Extra efforts are made not for the benefit or the success of the organization, but for the participants themselves. Therefore, having high willingness to do more than the job role requires does not mean high organizational engagement. Thus, this is inconsistent with Yousef (1999) and proves that organizational engagement is not achieved even when high job satisfaction exists amongst the participants.

Also, knowledge and experience gained from being engaged in an organization are most admitted and valued by the participants,

*“if you want to challenge yourself and try to get opportunity and face challenge you can find it here in this company.”*

Quite surprisingly, none of the participants see the importance of low absenteeism and turnover rate when it comes to the benefits of organizational engagement.



## Conclusion

This study aims to understand how Thai culture influences job satisfaction within Thai privately held companies, and whether or not high job satisfaction results in high organizational engagement within Thai privately held companies. To explain how Thai culture affects job satisfaction, Hofstede's cultural dimension theory is applied. In-depth interviewing method is used and data is collected from 15 participants from Company A that was chosen to represent Thai privately held companies in Thailand.

Findings show that the dimensions of Collectivism, Uncertainty Avoidance, and Femininity have positive impacts on job satisfaction, while the dimension of Power Distance consisting of factors such as the seniority system has a negative impact on job satisfaction. As a collectivistic culture, Thais highly value the importance of social relationship. Having good relationships with coworkers and teamwork within the workplace proves to have a positive impact on job satisfaction. However, though Thai culture is a collectivistic culture that favors to maintain harmony and avoid conflict; surprisingly, confrontation is preferred by participants in order to resolve an issue. Moreover, Thai subordinates are uncomfortable with ambiguity and prefer directions regarding their tasks. However, the existence of uncertainty does not negatively impact job satisfaction because participants feel that having a supportive team with great teamwork overthrows the negative aspects of job uncertainty. Thus, the dimension of Uncertainty Avoidance is positively related to job satisfaction through the influence of Collectivism. Also, regarding Femininity, recognitions are important in the Thai society. Being recognized for their contributions from superiors translates into support from the

organization. Therefore, this dimension is positively related to job satisfaction.

Unlike the aforementioned cultural dimensions, the dimension of Power Distance is negatively related to job satisfaction. Though participants feel that there is very little distance between subordinates and managers, there is still a sense of "kreng-jai" within the workplace due to seniority. The seniority system also discourages employees to perform at their optimal, for advancement is based on years of work or age rather than skills and achievements. However, even with the negative influence of Power Distance, 13 out of 15 participants agree to have high job satisfaction because of the work conditions and social relationship.

Furthermore, job satisfaction that exists amongst participants from Company A does not develop into organizational engagement due to the lack of growth and career advancement, which is affected by the seniority system. Participants with high job satisfaction choose to leave the organization because of their career paths. Also, all participants are willing to do more than their role requires, but none shows strong emotional attachment to the organization. It can thus be concluded that high job satisfaction does not have a direct relationship with high organizational engagement.

Organizational engagement is important and beneficial, if achieved, to both the employees and the organization. Being engaged, employees acquire priceless experience and knowledge and pride in their jobs. In return, the organization benefits from project implementations from experienced employees as the employees are the factor that drives the company. Moreover, by retaining skilled employees, the company's reputation is heightened and brand image strengthened; resulting in being able to

deliver to customers' great satisfaction and company's long-term achievement.

From the study, it can be said that the role of Thai culture has no effect on the relationship between job satisfaction and organizational engagement in Thai privately held companies in Thailand, for job satisfaction also does not lead to organizational engagement. However, the Collectivism, Uncertainty Avoidance, and Femininity dimensions of Thai culture are positively related to job satisfaction whereas Power Distance consisting of rigid hierarchical system is negatively related to organizational engagement.

## Recommendations

In order to achieve organizational engagement within the workplace, the seniority system of Thai culture should play less significant role. In order for an employee to be promoted, the employee should be judged on his or her performance and abilities rather than age or the length of period within the organization. The advancement of each employee should be backed up by KPI performance. Managers should evaluate each employee's KPI performance on a yearly basis and use fair judgment; giving credits to subordinates who show great accomplishments and have potential for growth. As the seniority system becomes less significant, this will lead to a positive change that affects employee's decision to stay and grow with the organization. In addition to yearly KPI, encouraging new roles and responsibilities to promote growth and advancement will help retain employees as well.

Additionally, to maintain the level of job satisfaction, managers should continue to delegate responsibilities to subordinates, publicly give rewards and recognitions, and promote teamwork throughout the

workplace. Having a strong support system and a sense of teamwork within a workplace are the most crucial factors of sustaining employee's job satisfaction in a Collectivistic and Feminine culture like the Thai culture.

Furthermore, each employee should create a clear career path plan and keep track of his or her progress. In order to reach their career goals, it is important for employees to see the steps that are required to be taken within a certain timeframe. When shared with the organization, this will help the organization retain employees by being able to understand their wants and needs and to be able to best provide opportunities that match each employee.

## Limitation

This study has a limitation in the size of the sample because the qualitative method is used. Findings from the limited number of participants from Company A may not be used to generalize the larger population. In applying the qualitative method with in-depth interviewing technique, findings are based on what participants say at face value and may contain biases. Participants' responses during the interviews are dependent on their current mood and their abilities to recall certain scenarios at the workplace. Therefore, based on participants' abilities to remember experiences from the past, memories can fade and become less accurate. Moreover, because this research topic is sensitive, participants may give answers that do not reveal their honest feelings and opinions. Because Thai culture is highly Collectivistic, participants may respond in such a way that makes them fit in with and be accepted by the people at the workplace.

Future research could extend to larger sample size and/or those who works in

different companies but similar types of organizations. There may be unique characteristic of type of organizations (private and public) or (manufacturing and service) or (Thai owned or multinational company).

One of the most surprising discoveries from this study is how Thai employees prefer confrontation even when Thai is a Collectivistic culture that favors harmony. Future studies should focus on how the new generation is starting to detach from

Thai social values. Is the detachment influenced by Western culture? Possible influencing factors include the increasing number of international schools in Thailand and of people going abroad to receive higher education, and the effects of Western media. Does it play a role in minimizing the seniority system? How does it positively or negatively affect job satisfaction and organizational engagement within Thai privately held companies in Thailand?

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# Factors affecting behavioral intentions and responsible environmental behaviors of Chinese tourists: a case study in Bangkok, Thailand

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## Abstract

This study examined factors related to behavior intentions and responsible environmental behaviors of tourists who were travelling to Bangkok. Based on theory of the reasoned action (TRA); the theory of planned behaviour and the model of responsible environmental behaviour, the key to eliminating environmental problems depends on how much individuals are motivated to change Chinese tourists' behavior intentions and responsible environmental behavior. The aim of this case study was to examine the ways in which the eco-friendly behavior intentions of Chinese tourists are affected by their attitude and subjective norms towards the environment, and to observe how their eco-friendly behavior intentions induce these tourists into exhibiting environmentally responsible behaviors when visiting Bangkok, Thailand. Primary data was collected via questionnaires, which were sent out to and completed by 400 tourists. The data collected was then processed using both multiple and linear regression methods. It was found that (i) these tourists' attitudes towards the environment had a significant effect on their eco-friendly behavioral intentions; (ii) their subjective norms, which include descriptive norms and personal norms, could influence their intentions to some extent; and, (iii) their behavioral intentions significantly influenced the extent to which they demonstrated environmentally responsible behaviour.

**Keywords:** environmental attitude, injunctive norms, descriptive norms, personal norms, environmentally responsible behavior.

**Paper type:** research paper

## Introduction

Thailand is one of the most popular tourist destinations in the world. Bangkok is the capital of and most populous city in Thailand. Thailand is especially popular among Chinese tourists, and was ranked “Asia’s second-most popular city” by Boonsong Kositchitethana (Jon Fernquest, 2016). Tourists are lured by the country’s natural resources and its unique Buddhist culture, including its tropical islands, tropical rainforests and temples. The extraordinary growth of China’s economy has enriched many of its citizens, who can thus afford to travel abroad on vacation. Thousands of prosperous Chinese citizens visit Thailand each year; they are drawn by affordable travel and accommodation prices, and Thailand’s pleasant climate. However, Thailand’s growing tourism industry, which drives economic development in the country, has also wrought environmental damage.

In recent decades, many governments, companies and communities throughout the world have taken steps to control the risks and extent of environmental damage, a problem that can escalate in industrialised, consumerist economies. In order to maintain and protect the country’s ecological tourist attraction, the Thai government is trying to promote and build an eco-friendly image of its tourism industry for international tourists. However, the creation of eco-friendly tourism involves more than simply redressing environmental problems; the people who are responsible for causing damage to the environment need to be persuaded to modify their behavior (Kaiser, 1996). However, the extent to which Chinese tourists visiting Thailand are motivated into adopting more eco-friendly behaviors is unknown. It is probable that among them there is a lack of necessary subjective norms, and that these tourists might not transfer good environmental attitudes into eco-friendly actions (or environmentally responsible behaviors). Researchers have investigated

the links between environmental attitude and subjective norms with responsible environmental behavior.

A consumer exhibits environmentally responsible behaviour when he or she makes an effort to protect the environment. According to some researchers, this includes taking actions so as to minimize any negative environmental impact. An individual who seriously considers the future environmental consequences of his or her actions tends to show more responsibility towards the environment and makes conscientious choices (Kollmuss and Agyeman, 2002; Meijers and Stapel, 2011). The aim of this paper is to discuss whether Chinese tourists carry out environmentally responsible behavior while on vacation in Thailand.

## Literature Review

### Environmental attitude

So far, environmental attitudes are not clearly defined. This concept has been similarly declared to be environmental affection, environmental awareness, and environmental consciousness. In the 1970s, Piaget showed that environmental attitudes were composed of affection, perception, and ability (Averhart et al., 1997). In the 1990s, Webber suggested that environmental attitudes could be divided into three parts: belief, affection, and behavior. In addition, Kaiser et al. (1999) demonstrated that environmental attitudes were composed of environmental values, environmental knowledge, and ecological behavior intentions. At the same time, Lu et al. (2004) divided environmental attitudes into four dimensions: environmental resource, environmental study, environmental protection and environmental sustainability.

In this paper, measuring environmental attitudes used the New Environmental scale. Charles A (2013) found that of these



environmental attitudes measures, the New Environmental paradigm scale could stand out as being the most widely accepted with documented validity and reliability. The New Environmental Paradigm (NEP) scale is the most widely used measure to investigate the overall relationships between humans and nature and attention to the ecological environmental and faith. (Milfont and Duckitt, 2004). It is important to statistically validate potential discrepancies between the theoretical conceptualization proposed and the empirical relations that are observed. The NEP may help to understand how environmental attitudes are organized cognitively with belief systems, and how measure individuals think about the self in relation to environmental problems. Further validation testing empirical level for responsible environmental behavior (Dunlap, 2000; Dunlap, 2008; Jonathan W., et al. 2011). These constructs were focused on resident attitudes toward resource use and management of tourism development. in order to assess tourists' environmental attitude, the NEP scale (consisting of 15 items), was used in its entirety to measure the environmental attitude (Bjerke et al., 2006).

### **The effect of environmental attitude on behavioral intention**

It has been reported in previous research studies that 'eco-tourists', or environmentally responsible tourists, are more environmentally conscious of showing eco-friendly behavior and have heightened eco-friendly intentions. Such tourists choose to stay in 'green' hotels with good environmental standards, drive eco-friendly vehicles, and support organizations implementing eco-friendly programs (Han et al., 2010). Many tourists also take the initiative at home by recycling or reusing materials in their efforts to protect the

environment. In environmental regulation, priority should be given to preventing environmental damage. One strategy for this is to adjust people's environmental attitudes and subjective norms. A number of factors dictating an individual person's responsible environmental behavior have been identified, including his or her age, gender, income, education, as well as his or her environmental attitude, subjective norm and behavior intention. A tourist's environmental attitude can influence the extent to which he or she exhibits eco-friendly behaviors, as well as his or her valuation of environmentally responsible tourism initiatives.

Follows, S.B., & Jobber, D., (2000) identified a positive relationship between the environmental attitude and environmentally responsible behavioral intention of tourists, once the people be interest to act eco friendly intention to purchase a specific environmentally responsible product, the environmental attitude must relate specifically to that act. Han et al. (2010) showed that one's behavioral intentions are influenced by one's attitude toward green issues: a tourist who receives information via word-of-mouth about a 'green' hotel and who has a more environmentally responsible attitude is likely to pay more on account of the hotel's positive environmental image. It has been shown in some studies that tourists with more environmentally responsible attitudes are more likely to adopt an eco-friendly behavior than those who feel indifferent towards the natural environment (Xinyu, Cao., & Patricia, L Mokhtarian., 2005). Specifically, a tourist's environmental attitude has a significantly positive effect on (i) his or her intention to perform a more eco-friendly behavior (Han and Hsu, 2010), (ii) his or her sustainability intention, which then affects his or her behavior (Halder *et al.*, 2013; Swaim *et al.*, 2013), and (iii) his or her willingness to select eco-friendly transportation in destination countries (Xinyu, Cao., & Patricia, L Mokhtarian., 2005).

## Subjective norms

In recent years, researchers started to look into the subjective norm in the context of environmentally friendly behavior, and this approach as a new one to recognized (Moon & Sun-Jung, 2009). The subjective norm construct refers to the belief that significant referents think that one should carry out the behavior and the motivation to comply with these referents (Nilsson et al. 2004). Cialdini, Reno, & Kallgren (1990) found that subjective norm focus theory distinguishes three types of norms: descriptive, injunctive, and personal norms. Descriptive norms that refer to the popularity of a certain act and provide information about what appears to be the most appropriate behavior based on the perception of what other people usually do. Injunctive norms that refer to social approval of the act and beliefs about how one ought to act based on expectations of what other people would morally approve. Personal norms refer to individuals' beliefs regarding the popularity of the behavior in question among those who have the self-concept and experienced as feelings of a moral obligation to perform a certain behavior (Cialdini et al., 1991).

## The effect of subjective norms on behavioral intention

Many studies addressing subjective norms relate to the theory of planned behaviour (or TPB model). Bamberg *et al.* (2007) suggested that subjective norms partly explains the variance in tourists' behavior intentions, as well as the way in which environmentally responsible attitudes dictate behavior intentions and environmentally responsible behavior. Han et al., (2010) demonstrated that subjective norms also determine a tourist's behavioral intentions to choose a green hotel and his or her willingness to behave in an environmentally responsible manner at tourist sites (Ong and Musa, 2011).

Ajzen (1991) claimed that subjective norms dictate a tourist's motivation to perform a behavior by implanting certain expectations and opinions regarding that particular behavior. David and Straub, (2003) claimed that subjective norms have a significant influence on behavioral intention. Subjective norms form a component of the theory of reasoned action (Ajzen and Fishbein, 1980), one which was extended in the theory of planned behavior (Ajzen, 1991). According to both theories, subjective norms pressure behaviors in a certain way and play their part in shaping behavioral intentions, which themselves constitute the major determinant of environmentally responsible behavior.

## Behavior intention and responsible environmental behaviour

Most of the studies found that the attitude-behavior model as a theoretical basis for studying the relationship between environmental attitude and behavior intention to the responsible environmental behavior by the theory of reasoned action (TRA; Fishbein and Ajzen, 1980) and the theory of planned behavior (TPB; Ajzen, 1991). Environmental attitude and subjective norms are an important precedent variable of behavioral intention. The behavioral intention can explain the variance of the behaviors. Responsible environmental behavior as behavior has received considerable attention in the context of sustainable tourism and environmental education. (Lee W & Moscardo G, 2005; Han et al., 2010; Han et al., 2011; Kim & Han, 2010; environmental education: Kaiser et al., 1999; Milfont & Duckitt, 2010).

Responsible environmental behavior (REB) has been defined in a variety of ways. Most of researchers have used a variety of behavior criteria including recycling, purchase green product, writing to legislators and supporting environmental groups. Hines et al. (1986)

defined REB as action initiated by the individual with the intention of remediating an identified environmental problem. (Kaiser et al.,1999; Gross,2001; Lee&Moscardo, 2005)

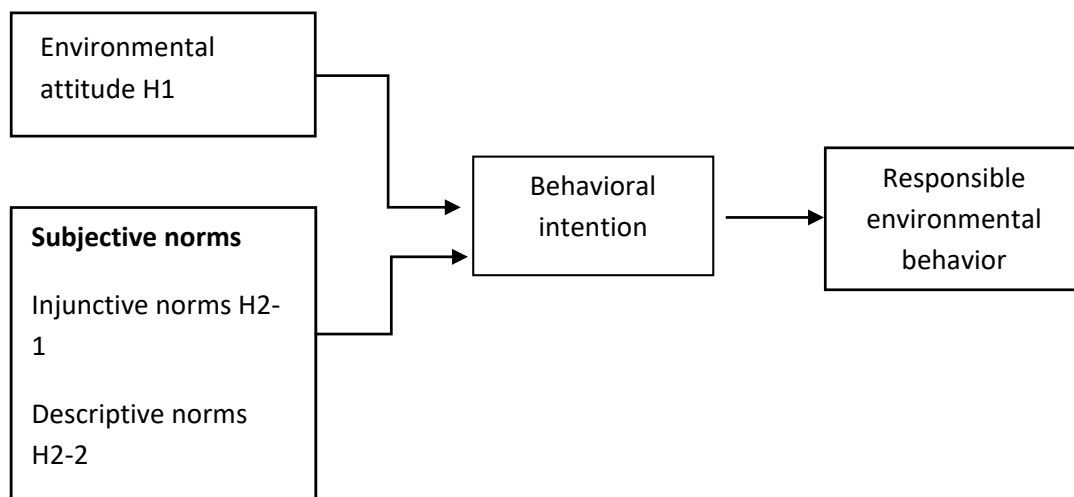
To mitigate environmental impacts, several studies of responsible environmental behavior have focused on promoting individual responsible environmental behavior in different areas, such as environmental education, environmental consumer, environmental consumer behavior, recreation activities and green hotel choice (Gatersleben et al., 2002; Ballantyne et al., 2005; Luchs et al., 2010; Chen, 2010; Han et al., 2010).

Kaiser and Wilson (2004) found that numerous studies have engaged in developing a scale for measuring Responsible environmental behavior with the ultimate goal of measuring an individual's responsible environmental behavior. Responsible environmental behavior has been measured by only one dimension of the environmental problem (Chang, 2010). Recently, Lee et al. (2005) have conceptualized and measured

REB from the perspective of community-based tourists.

### The effect of behavioral intention on responsible environmental behavior

It is imperative for people living today to reduce or eschew actions that lead to environmental damage so that future generations can enjoy a high quality of life and have access to natural resources (Hardin, 1968; Dawes, 1980; Biel and Grling, 1995; Hammitt, 1995; Fransson and Garling, 1999). Arjen (1991) argued that the TPB model could be treated as a theoretical framework for understanding people's behavioral intentions, and so might be used as a medium for the relationship between survey respondents' attitudes and their environmentally responsible behavior. The strength of one's behavioral intention, which is assumed to be an immediate antecedent of behavior, could influence the extent to which one behaves in an environmentally responsible manner (Kaiser,1999; Chao and Lam,2012; Lee and Moscardo, 2005).



**Figure 1** Conceptual Framework

In this case study, the following hypotheses and sub-hypotheses were tested:

**H1:** Environmental attitude has an effect on behavioral intention.

**H2:** Subjective norms have an effect on behavioral intention.

**H2-1:** Injunctive norms have an effect on behavioral intention.

**H2-2:** Descriptive norms have an effect on behavioral intention.

**H2-3:** Personal norms have an effect on behavioral intention.

**H3:** Behavioral intentions influence the extent to which one behaves in an environmental responsible manner.

## Methodology

### Sampling

The target population of this study consisted of Chinese tourists visiting Bangkok, Thailand. The average annual tourist inflow during the past six years (2010 through 2015) was exactly 3,656,458. The sample size for this study was calculated using the formula recommended by Yamane (1973):

$$n = \frac{N}{1 + Ne^2}$$

Whereby:

$n$  = size of sample

$N$  = population of sample

$e$  = probability of error

Therefore, since  $e$  was equal to 5% (or 0.05), the sample size for this study was computed as follows:

$$n \Rightarrow 3,656,458 / 1 + (3,656,458 \times (0.05)^2)$$

$$n = 399.956 \approx 400$$

The sample size was therefore about 400 tourists.

### Research design

In this case study, a quantitative research method was used, whereby primary data was collected from the sample of Chinese tourists who had traveled to Thailand. It contained questions regarding respondents' general background information, questions about environmental attitude (concerning 15 items sourced from the new environmental paradigm (NEP) scale by Dunlap and Van, 2000), questions about subjective norms (adapted from Pradeep, 2012; and Rouven, Daniel and Svein, 2016), and questions about behavioral intention and environmentally responsible behavior (adapted from Lam and Cheng, 2002; and Chao and Lam, 2011). (Follow to the Table 1)

**Table 1** the source of the questionnaire

<b>Environmental attitude</b> (NEP statements)	
1	We are approaching the limit of the number of people the earth can support.
2	Humans have the right to modify the natural environment to suit their needs.
3	When humans interfere with nature, it often produces disastrous consequences.
4	Human ingenuity will insure that we do not make the Earth unlivable.
5	Humans are seriously abusing the environmental.
6	The earth has plenty of natural resources of we just learn how to develop them.
7	Plants and animals have as much right as humans to exist.
8	The balance of nature is strong enough to cope with the impacts of modern industrial nations.
9	Despite our special abilities, humans are still subject to the laws of nature.
10	The so-called " ecological crisis" facing humankind has been greatly exaggerated.
11	The earth is like a spaceship with very limited room and resources.
12	Humans were meant to rule over the rest of nature.
13	The balance of nature is very delicate and easily upset.
14	Humans will eventually learn enough about nature works to be able to control it.
15	If things continue on their present cause, we will soon experience a major ecological catastrophe.
<b>Subjective norms</b>	
<b>Most friends think that I should .....</b>	
IN1	Pay more money for a trip if this helps to protect the environmental.
IN2	Purchase environmental friendly tourism products although this might be more expensive.
IN3	Use public transportation or ride a bicycle although this might take more time.
IN4	Read and compare package labels for environmentally safe ingredients when shopping.
IN5	Stay at a green hotel when traveling.

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**I admire people who .....**

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DN1 Pay more money for a trip if this helps to protect the environmental.

---

DN2 Purchase environmental friendly tourism products although this might be more expensive.

---

DN3 Use public transportation or ride a bicycle although this might take more time.

---

DN4 Read and compare package labels for environmentally safe ingredients when shopping.

---

DN5 Stay at a green hotel when traveling.

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**I feel like I have a moral obligation to .....**

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PN1 Pay more money for a trip if this helps to protect the environmental.

---

PN2 Purchase environmental friendly tourism products although this might be more expensive.

---

PN3 Use public transportation or ride a bicycle although this might take more time.

---

PN4 Read and compare package labels for environmentally safe ingredients when shopping.

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PN5 Stay at a green hotel when traveling.

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**Before I arrive in Bangkok, I plan to .....**

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BI1 Shut down the TV before leaving for hours.

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BI2 Turn off the table lamp before leaving temporarily.

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BI3 Avoid taking free plastic bags from stores.

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BI4 Sort garbage for recycling.

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BI5 Collect small Plastic bags for reuse.

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**During the travelling, I .....**

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REB1 Shut down the TV before leaving for hours

---

REB2 Turn off the table lamp before leaving temporarily.

---

REB3 Avoid taking free plastic bags from stores.

---

REB4 Sort garbage for recycling.

---

REB5 Collect small plastic bags for reuse.

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*Note: IN, injunctive norms; DN, descriptive norms; PN, personal norms; BI, behavioral intention; REB, responsible environmental behavior.*

## Data Collection

In order to efficiently measure the Chinese tourists' behavioral intentions and extent to which they exhibited environmentally responsible behavior, potential respondents were targeted at three busy locations with high numbers of Chinese tourists: King Power, Don Mueang International Airport and Suvarnabhumi Airport. Potential respondents were targeted during a 28-day period, from 3 June 2016 to 30 June 2016.

## Data analysis

Reliability analysis can measure the quality of an important indicator which measurement

of the particular test are repeatable. (Malhotra & Birks 1999). In this thesis, the internal reliability test was used and based on Cronbach's Alpha coefficient and there are some researchers recommend the Alpha coefficient 0.7 that mean the Alpha of 0.7 is the cutoff value for being acceptable (Nunnally & Bernstein, 1994).

There are 30 questionnaires were collected from King Power Duty-Free in Bangkok used as the pilot research instrument. All of the responders can complete the questionnaire with 10 minutes, and the result of Cronbach's Alpha test for 30 questionnaires sampling is shown as below:

**Table 2** Reliability Statistics

Items	Cronbach's Alpha
Environmental attitude	0.764
Subjective norm	0.907
Behavior intention	0.716
Responsible environmental behavior (REB)	0.798

From the table 2, it shows that reliability of the variable was shown the Cronbach's Alpha score of all variable. It includes environmental attitude, subjective norm, behavior intention, and REB. The questionnaire was from the conceptual framework of the thesis. And the all the variables get the standardized definition higher than 0.700. It means the question is reliability or respect.

In this study, descriptive analysis was used to evaluate each item for each background variable. Respondents were asked to state their gender, age, education and monthly

income before taxation. Multiple regression was used to examine the relationships between the independent variables (environmental attitudes and subjective norms) and the dependent variable (behavioral intention). Linear regression was used to measure the influence of behavioral intention on environmentally responsible behavior.



## Results

### Gender

In the sample (N = 400), 55.5% of respondents were female and 44.5% of respondents were male.

### Age profile

The largest age group consisted of people aged between 21 and 30 years old (70.0% of respondents). The secondary age group consisted of people aged between 31 to 40 years old (17.0% of respondents). The third age group consisted of people aged between 41 to 50 years old (6.0% of respondents). The fourth age group consisted of people aged were less than or equal to 20 years old (5.8% of respondents) and the last age group consisted of people aged were more than 50 years old (1.2% of respondents).

### Level of educational attainment

A slim majority of respondents (56.3%) had earned bachelor's degrees. The secondary

group of respondents (20.2%) had earned technical college. The third group of respondents (10.5%) had earned master degree or higher. A small of respondents (1.3%) had eaned secondary school.

### Income

The largest group consisted of people earning between 2000 and 4000RMB per month (29.8% of respondents). The secondary group consisted of people earning between 4001-6000RMB per month (18.5% of respondents). The third group consisted of people earning between 6001-8000RMB per month (10.3% of respondents). The fourth group consisted of people earning more than 10000RMB per month (9.8% of respondent). A small group consisted of people earning between 8001-10000RMB per month (6.8% of respondent).

The reliability of the respondents' answers for each variable was tested using Cronbach's Alpha score. All results exceeded 0.700, and so the questions were deemed to be statistically reliable.

**Table 3** Reliability test results (Cronbach's Alpha).

Items	Cronbach's Alpha
Environmental attitude	0.764
Subjective norm	0.907
Behavior intention	0.716
Responsible environmental behavior (REB)	0.798

### 1. Analysis of agreement

Each question had a statement accompanied by a 5-point Likert scale (1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; and 5 = strongly agree). The average level of agreement for each variable is listed in Table 4. Overall, many respondents were generally in agreement with the statements, although the extent

varies slightly, from a lukewarm 3.67 (for injunctive norms) to a strong 4.40 (for behavior intention). The average level of agreement with statements regarding environmentally responsible behavior was 4.02; thus it was evident that many of the respondents try to behave in an environmentally responsible manner when travelling to Thailand.

**Table 4** respondents' average level of agreement with statements concerning the seven variables.

	EA	SN	IN	DN	PN	BI	REB
Mean	3.79	3.86	3.67	4.00	3.90	4.40	4.02

NB. EA is environmental attitude, SN is subjunctive norms, IN is injunctive norms, DN is descriptive norms, PN is personal norms, BI is behavioral intention, and ERB is environmentally responsible behavior.

## 2. Hypothesis testing

### *Hypothesis 1 and Hypothesis 2*

Multiple regression results for relationships among the environmental attitude, the three subjective norms and behavioral intention are provided in Table 5. The R Square value is 0.628, thus environmental attitude and subjective

norm explains about 62.8% of the respondents' behavioral intentions.

The F value is 64.225, and the alpha value is below 0.01, and thus substantially less than 0.05. Therefore, among the respondents, environmental attitude and subjective norm does significantly influence behavioral intention.

**Table 5** Summary of multiple regression result on the effect of environmental attitude, injunctive norms, descriptive norm, personal norms on behavioural intention

R	R Square	Adjusted R Square	F	Sig.
0.628	0.394	0.388	64.225	0.000

The influence of environmental attitude, the three subjective norms (injunctive, descriptive and personal) on behavioral intention was tested using multiple regression. Results are provided in Table 6. It was found that the former has a significant effect on the latter: for environmental attitude, the t value is 7.028, and the p value is 0.000 (below 0.05). A positive relationship was detected, thus the better (higher) the environmental attitude, the more eco-friendly the

behavioral intention. Therefore, H1 is supported. Meanwhile, positive relationships were found for descriptive norms ( $t = 2.747$ ,  $p < 0.05$ ) and personal norms ( $t = 5.658$ ,  $p < 0.05$ ), but not for injunctive norms. It was found that, among the respondents, injunctive norms do not significantly influence behavioral intention. Overall, H2 is moderately supported, although H2-1 is not supported.

**Table 6** Multiple regression results on the effects of environmental attitude, injunctive norms, descriptive norm, personal norms on behavioural intention

Model	Unstandardized Coefficients B	Standardized Coefficients Beta	t	Sig.
(Constant)	1.393		6.668	0.000
Environmental attitude	0.384	0.301	7.028	0.000
Injunctive norms	-0.001	-0.001	-0.010	0.992
Descriptive norms	0.100	0.117	1.750	0.006
Personal norms	0.294	0.350	5.157	0.000

### Hypothesis 3

Linear regression results for the relationship between behavioral intention and environmentally responsible behavior are provided in Table 7. The R Square value is 0.393; thus, behavioral intention determines about 39.3% of change in the dependent variable among the

respondents. It should be noted that the R value is almost double that of R Square. The F value is 257.163, and the p value is below 0.01. Therefore, among the respondents, behavioral intention does significantly influence the extent to which their behavior is environmentally responsible.

**Table 7** Summary of regression results on the relationship between behavioral intention and environmentally responsible behavior.

R	R Square	Adjusted R Square	F	Sig.
0.627	0.393	0.391	257.163	0.000

The linear regression results for the relationship between behavioural intention and environmental responsible behavior are provided in Table 8. It was found that the former has a significant effect on the latter: for behavioural intention, the t value is 16.036, and the p

value is 0.000 (below 0.05). A positive relationship was detected, thus the better (higher) the eco-friendly behavioral intention, the more environmental responsible behavior. Therefore, H3 is supported.

**Table 8** Linear regression results for behavioral intention and environmentally responsible behavior.

Model	Unstandardized Coefficients B	Standardized Coefficients Beta	t	Sig.
(constant)	1.044		5.560	0.000
Behavioral intention	0.677	0.678	16.036	0.000

## Discussion

### The effect of environmental attitude on behavioral intention

The results in this case study are evidence that environmental attitude and at least two kinds of subjective norms influence the behavioral intentions of Chinese tourists visiting Bangkok, Thailand, which in turn determine the extent to which they exhibit environmentally responsible behavior. Follows, S.B, & Jobber, D., (2000) reported that people's attitudes toward eco-friendly products have a significant effect on their purchase intentions. Xinyu, Cao., & Patricia, L Mokhtarian. (2005) explored various theories in the social psychology area, including the theory of reasoned action (TRA), TPB and TAM (Davis, 1993) models, which have been used to predict consumers' e-shopping behavior through evaluation of their attitudes. The converse is true for benefit and cost measures. Han (2010) reported that a person's attitude has a positive influence on his or her visit intention. There has been research into customer attitudes, and the influence of complex interests or beliefs on people's intentions to pursue environmentally sustainable activities. Dunlap *et al.* (2000) mentioned that the NEP scale is the most widely used one for measuring the extent to which people are concerned about themselves and the environment, and reported that environmental attitude influences behavioral intention. Bjerke *et al.* (2006) demonstrated a link between people's recreational activities and environmental attitude; this was measured using a shortened version of the NEP scale. They also claimed, using their NEP results, that environmental attitude has a positive effect on behavior intention.

### The effect of subjective norm on behavioral intention.

In the sample, no significant influence of injunctive norms on behavioral intention was found; only descriptive norms and personal norms were found to have a significant effect. Smith *et al.* (2012) found that people are more likely to show more environmentally responsible behavioral intentions when conserving energy, and that this pattern does not vary between different countries or cultures. Similar interaction effects are present when subjective norms communicate the urgency of extenuating environmental problems.

Fen, Y S., & Sabaruddin, N A., (2009) found that injunctive norms and descriptive norms, but not personal norms, have significant effects on exercise intention. This finding is also similar to those presented by Boldero (1995) and Perugini and Ercolani (2001). Aipanjiguly (2003), in reference to the TRA model, claimed that boaters' subjective norms have a strong connection with their behavioral intentions to abide by the rules in speed zones.

And this research could be applied to designing public education communication.

### The effect of behavioral intention on environmentally responsible behavior

It was found in this case study that behavioral intention has an effect on environmentally responsible behavior. It is therefore likely that if Chinese tourists visiting Thailand have the behavioral intention to be eco-friendly, they will exhibit environmentally responsible behaviour when traveling. Chao and Lam (2011) claimed that behavioral intention has a minimal effect on environmentally responsible behavior, and that connections exist between social desirability and indicators of behavior. However, in a study of

students who participated in the NOLS'WRW outdoor education and behavioral science course, Hammitt (1995) reported that their environmentally responsible behaviour at home was influenced by the course. Kaiser (1999) also found that behavioral intentions could predict up to 94% of reliable variance in behavior. Obviously, ecological behavioral intention is related to general ecological behavior. Lee and Moscardo (2005) demonstrated that positive environmental attitude is associated with one's intention to travel in a more environmentally friendly way, and therefore leads to better environmentally responsible behavior; the findings in this paper reflect this.

## Conclusion

This paper is a case study on the influence of subjective norms (injunctive, descriptive and personal) and environmental attitude on the behavioral intentions, and in turn on the environmentally responsible behavior of a sample of 400 Chinese tourists visiting Bangkok, Thailand. It was found among these Chinese tourists that (i) environmental attitude, descriptive norms and personal norms have a significant effect on behavioral intention; however, no significant effect of injunctive norms on behavioral intention was found. It was found among the respondents that behavioral intention has a significant effect on responsible environmental behavior.

It is asserted that these Chinese tourists generally hold a positive environmental attitude towards the environment and pay due attention to their behavior; they might act improperly because they do not have sufficient means to do so. Therefore, it is important to demonstrate to Chinese citizens the extent to which they are responsible for damage caused to the environment by tourism. It is evident from the results in Table 2 that Chinese tourists feel strongly about

environment problems (environmental attitude). This may be because they believe that people have an obligation to protect the local ecology at tourist destinations.

## Recommendations

Hotel companies, government departments, the Tourism Authority and travel agents in Thailand should make the long-term development of eco-tourism a priority, and should also contribute to maintaining a clean, natural environment and good hygiene standards. The tourism authority should deploy more cleaners to remove litter from tourist attractions, and should plant more trees and other vegetation in order to counter carbon emissions and improve the aesthetic environment. By keeping the grounds free from litter and making the landscape more verdant, the tourism authority might be able to attract more tourists and increase customer satisfaction. Tourists enjoy visiting a clean, natural and green environment, and such environments generate a greater awareness of the need for environmental protection.

The Thai government should improve its environmental services by increasing the rate of waste recycling. Another environmentally beneficial policy could be to instruct retail stores to impose a charge on plastic bags. Stern (2005) found that even though eco-friendly tourists hold positive beliefs, their subjective norms will be hindered by constraints. In other words, if they come from a country with stringent environmental regulations and have not used free plastic shopping bags for a long time, they might renege on their principles when visiting a country where free shopping bags are available. Consequently, in order to prevent this from happening, the Thai government should try to enact environmental policies that are at least as stringent as those in China.

Hotel companies in Thailand should also impose environmental policies and notify tourists what is expected of them. Hotel personnel should hang signs on doors with instructions for saving water and electricity and reducing wastage (e.g. by reusing towels). Hotel managers could also offer incentives to tourists who show environmentally responsible behaviour: they could offer promotions or discounts if tourists perform such eco-friendly activities.

## Limitations and further research

This case study has two limitations. First, the focus was only on Chinese tourists visiting Bangkok, Thailand. Future studies should be focussed on tourists of other nationalities visiting other cities, and comparisons should be made among them. Second, this is a study on the effect of environmental attitude and three kinds of subjective norms on behavioral intention. Other external factors should be explored in future studies, including socio-demographic background, tourists' own perspectives and customer satisfaction.

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# Working capital management and profitability of SMEs in Thailand

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## Abstract

The purpose of this study is to examine the effect of working capital management on the profitability of SMEs in Thailand by employing the sample of 15 listed companies on the Market for Alternative Investment (mai) in the industrial industry group. The quarterly financial data from 2011 to 2015 are used. The statistically significant results from the multiple regression with ordinary least squared show that payables deferral period and sales growth positively affect the profitability of SMEs. In addition, current assets to total assets ratio and current liabilities to total assets ratio negatively affect the profitability of SMEs. Therefore, SMEs with longer payables deferral period, higher sales growth, lower current assets to total assets ratio, and lesser current liabilities to total assets ratio can generate more profit.

**Keywords:** working capital management, profitability, SMEs, Thailand

## Introduction

Generally, companies focus on maximizing their values by operating efficiently under acceptable level of risk. To achieve, all business functions, including finance, marketing, accounting, manufacturing, purchasing and human resource, must work collaboratively. Corporate financial management is very important to the company's success because it carries three major tasks combining of uses of funds, sources of funds as well as financial analyzing and planning. Uses of funds can be the investment in current assets and non-current assets. Companies have to ensure the adequate liquidity for the daily operations by implementing the appropriate working capital management policy. The decision makings not only on the suitable cash on hands, account receivables collection periods and inventory periods but also on the sources of funds for this working capital are critical.

Because of Asian Economics Community (AEC), trading and investment; especially in the Small and Medium Enterprises (SMEs) business sector, are very competitive among member nations. SMEs account for approximately 96% of all businesses in AEC. Thus, Thailand, as one of AEC members, aims to enhance its SMEs' source of funds by establishing the Market for Alternative Investment (mai) in 1998. There are 8 industry groups in mai; consisting of agro & food industry, consumer products, financials, industrial, property & construction, resources, services, and technology.

Industrial industry group involves manufacturing and supplying raw materials such as packaging, steel, car parts, petrochemical, chemical, equipment and machinery. There are 34 out of 131 companies listed on mai in the industrial industry group (<https://marketdata.set.or.th/mkt/sectorquotation.do?sector=mai>).

Companies in the industrial industry group

have to deal with a lot of account receivables, inventories and suppliers. Thus, in order to have adequate liquidity, working capital management is very essential to these companies. Therefore, the objective of this study is to examine the effect of working capital management on the profitability of SMEs in Thailand during 2011-2015. The findings will benefit SMEs in managing their working capital more efficiently.

## Literature Review

A lot of articles study the association between working capital management and firm performance. For example, Filbeck and Krueger (2005) use the CFO magazine's annual working capital management survey across industries during 1996-2000. They find that working capital measures among industries are significantly different across time. In addition, Singh and Kumar (2014) employ systematic literature review (SLR) method and analyze 126 papers on working capital management. Two main points are examined, including the impact of working capital on profitability of firm and working capital practices. Major finding is that working capital management is important for corporate profitability. Furthermore, Singh et.al. (2017) use meta-analysis technique to analyze the findings of previous articles on the effect of working capital management on firm profitability. They find a negative relation between cash conversion cycle and firm profitability, meaning that an aggressive working capital management policy leads to higher profitability.

The study of working capital management is also of interests of both developed and developing countries around the world. Recently, in Europe, there are the studies in Spain, Finland, UK, Portugal and Norway. Firstly, Garcia-Teruel and Martinez-Solano (2007) examine a panel data of 8,872 small to medium-sized Spanish enterprises during

1996-2002. The results show that firm's profitability can be improved by decreasing days inventories outstanding and days sales outstanding as well as lowering the cash conversion cycle. Secondly, Marttonen et.al. (2013) study the impact of working capital management on profitability of 18 Finnish industrial maintenance firms by using an analytical flexible asset management (FAM) model. They find a significant negative association between the cycle times of operational working capital and the return on investment.

Thirdly, three papers study SMEs in UK. Taurigana and Afrifa (2013) examine 133 Alternative Investment Market (AIM) listed SMEs during 2005-2009 by employing panel data regression analysis and a questionnaire survey. They find that the management of accounts payable and accounts receivable is important for SMEs profitability. Afrifa and Padachi (2016) use panel data regression to analyze 160 Alternative Investment Market (AIM) listed SMEs during 2005-2010. They find a concave relationship between working capital level and firm profitability, showing that there is an optimal working capital level at which firm's profitability is maximized. Afrifa (2016) use unbalanced panel data regression analysis on 6,926 non-financial small and medium enterprises in UK from 2004 to 2013. The results suggest that firms should consider their cash flow when making decision on working capital investment. To improve performance, firms with limited cash flow should reduce their working capital investment. However, firms with available cash flow should raise their working capital investment.

Next, Pais and Gama (2015) study the effects of working capital management on the profitability of 6,063 Portuguese small and medium-sized firms during 2002-2009 by using panel regression (fixed effects) and instrumental variables. They find that a decrease in days inventories outstanding,

days sales outstanding and days payables outstanding leads to higher firms' profitability. The results suggest that the use of more aggressive working capital management policies raises firms' profitability. Lastly, Lyngstadaas and Berg (2016) also find the practice of aggressive working capital policy in Norwegian firms. They employ panel data regressions (fixed effects) as well as a two-stage least squares (to control for endogeneity) to analyze 21,075 Norwegian small and medium-sized enterprises between 2010 and 2013. They find that a reduction in cash conversion cycle increases profitability.

Furthermore, some articles study the impact of working capital management on the profitability of firms in Asia. For instance, Singhania and Mehta (2017) analyze non-financial companies in countries of South East Asia, South Asia and East Asia by using two-step-generalized method of moments and find a non-linear relationship between firm profitability and working capital management in 11 countries comprising of India, Pakistan, Sri Lanka, Bangladesh, Singapore, Malaysia, Indonesia, Hong Kong, Japan, China and South Korea. Moreover, Nobanee et.al. (2011) examine the relation between cash conversion cycle and profitability by employing dynamic panel data analysis on the sample of Japanese firms during 1990-2004. They find a significantly negative relation between the length of the firm's cash conversion cycle and its profitability. Additionally, in Malaysia, Wasiuzzaman (2015) investigates the effect of working capital efficiency on firm value of 192 Malaysian firms during 1999-2008 by utilizing the ordinary least squares regression. The results show that the reduction in working capital investment causes the rising in firm value. Recently, Tran et.al. (2017) study the relationship between working capital management and profitability in Vietnamese small- and medium-sized enterprises and find an increase in firms' profitability from

decreasing the number of days of accounts receivable, accounts inventories and accounts payable to an optimal minimum.

However, Abuzayed (2012) uses panel data analysis (fixed and random effects) and generalized methods of moments to examine the impact of working capital management on firms' performance for the sample of 52 non-financial firms listed on Amman Stock Exchange in Jordan for the period from 2000 to 2008. The positive effect is found, representing that firms with high profit are less motivated to manage their working capital. Also, financial markets in Jordan do not punish managers for managing working capital inefficiently.

Thus, the findings of the study of working capital management and profitability of SMEs in Thailand will fulfill the literature on the efficiency of working capital management of SMEs; particularly, in the emerging markets.

## Methodology

### Data

Even though there are 34 listed companies on the Market for Alternative Investment (mai) in the industrial industry group, the sample includes only 15 companies that have continuous quarterly financial data of operating profit margin, net profit margin, receivables collection period, payables deferral period, inventory conversion period, current assets to total assets ratio, and sales during the study period from 2011 to 2015. All the financial data are collected from mai. The sample companies include:

1. 2S Metal Public Company Limited (2S)
2. C.I. Group Public Company Limited (CIG)
3. CPR Gomu Industrial Public Company Limited (CPR)

4. Halcyon Technology Public Company Limited (HTECH)
5. Multibax Public Company Limited (MBAX)
6. Porn Prom Metal Public Company Limited (PPM)
7. Salee Industrial Public Company Limited (SALEE)
8. Sherwood Chemicals Public Company Limited (SWC)
9. Tapaco Public Company Limited (TAPAC)
10. Teera-Mongkol Industrial Public Company Limited (TMI)
11. Thai Mitsuwa Public Company Limited (TMW)
12. Thai Plaspac Public Company Limited (TPAC)
13. Ubis (Asia) Public Company Limited (UBIS)
14. Union Petrochemical Public Company Limited (UKEM)
15. Yuasa Battery (Thailand) Public Company Limited (YUASA)

### Models

This study examines the effect of working capital management on the profitability of SMEs in Thailand by employing the multiple regression with ordinary least square. As the measurement of profitability, the dependent variables are operating profit margin (OPM) and net profit margin (NPM). The independent variables of working capital management are receivables collection period (RCP), payables deferral period (PDP) and inventory conversion period (ICP). Additionally, the control variables are current assets to total assets ratio (CATAR), current liabilities to total assets ratio



(CLTAR), sales growth (SG) and log of sales (SIZE). There are 2 models in this study.

#### Model 1:

$$OPM_{it} = a + b_1RCP_{it} + b_2PDP_{it} + b_3ICP_{it} + b_4CATAR_{it} + b_5CLTAR_{it} + b_6SG_{it} + b_7SIZE_{it} + e_{it}$$

#### Model 2:

$$NPM_{it} = a + b_1RCP_{it} + b_2PDP_{it} + b_3ICP_{it} + b_4CATAR_{it} + b_5CLTAR_{it} + b_6SG_{it} + b_7SIZE_{it} + e_{it}$$

Where:

OPM = Operating profit ÷ Sales

NPM = Net profit ÷ Sales

RCP = (Account receivables × 365) ÷ Sales

PDP = (Account payables × 365) ÷ Cost of goods sold

ICP = (Inventory × 365) ÷ Cost of goods sold

CATAR = Current assets ÷ Total assets

CLTAR = Current liabilities ÷ Total assets

SG = (Sales<sub>t</sub> – Sales<sub>t-1</sub>) ÷ Sales<sub>t-1</sub>

SIZE = Log(Sales)

i = Company 1, 2, 3, ..., 15 (1 = 2S; 2 = CIG; ... ; 15 = YUASA)

t = Time period 1, 2, 3, ..., 20 (1 = quarter 1 of 2011; 2 = quarter 2 of 2011; ... ; 20 = quarter 4 of 2015)

The hypotheses of this study are as follows.

H<sub>0</sub>: None of the working capital management variables affects the profitability of SMEs in Thailand.

H<sub>1</sub>: At least one of the working capital management variables affects the profitability of SMEs in Thailand.

## Results

**Table 1** Descriptive Statistics

	OPM	NPM	RCP	PDP	ICP	CATAR	CLTAR	SG	SIZE
Mean	0.093300	0.070146	250.4721	198.7627	260.1319	0.551733	0.384100	0.082467	5.562833
Max	0.913200	0.757000	1225.000	783.8300	4327.010	0.940000	0.720000	5.240000	6.630000
Min	-0.105800	-0.118300	22.85000	1.100000	11.31000	0.100000	0.010000	-0.380000	4.720000
S.D.	0.108008	0.088997	154.9888	136.9890	326.0563	0.199845	0.166312	0.378368	0.404215
Obs.	300	300	300	300	300	300	300	300	300

Table 1 shows descriptive statistics of all variables in this study. For profitability variables, operating profit margin has a mean of 9.33% with the maximum of 91.32%, the minimum of -10.58% and the standard deviation of 10.80%. Net profit margin has a mean of 7.01% with the maximum of 75.70%, the minimum of -11.83% and the standard deviation of 8.90%.

For working capital management variables, receivables collection period has a mean of 250.47 days with the maximum of 1,225 days, the minimum of 22.85 days and the standard deviation of 154.99 days. Payables deferral period has a mean of 198.76 days with the maximum of 783.83 days, the minimum of 1.10 days and the standard deviation of 136.99 days. Inventory conversion period has a mean of



260.13 days with the maximum of 4,327.01 days, the minimum of 11.31 days and the standard deviation of 326.06 days.

For control variables, current assets to total assets ratio has a mean of 0.55 times with the maximum of 0.94 times, the minimum of 0.10 times and the standard deviation of 0.20

times. Current liabilities to total assets ratio has a mean of 0.38 times with the

maximum of 0.72 times, the minimum of 0.01 times and the standard deviation of 0.17 times. Sales growth has a mean of 0.08 times with the maximum of 5.24 times, the minimum of -0.38 times and the standard deviation of 0.38 times. Size (as measured by log of sales) has a mean of 5.56 million baht with the maximum of 6.63 million baht, the minimum of 4.72 million baht and the standard deviation of 0.40 million baht.

**Table 2** Correlation Matrix

	RCP	PDP	ICP	CATAR	CLTAR	SG	SIZE
RCP	1.000000						
PDP	0.718521	1.000000					
ICP	0.474783	0.312828	1.000000				
CATAR	0.201370	-0.051554	0.200145	1.000000			
CLTAR	0.166387	-0.024409	0.228889	0.585973	1.000000		
SG	-0.116511	0.026465	-0.087772	-0.027833	-0.042574	1.000000	
SIZE	-0.574599	-0.548977	-0.368031	0.391318	0.325067	0.103347	1.000000

In order to check whether independent variables are highly correlated, correlations among independent variables are displayed in Table 2. From Table 2, none of independent variables has the absolute correlation above 0.80; therefore, there is no multicollinearity problem. Every

independent variable can be used in the models.

After solving the problem of heteroscedasticity by applying white heteroscedasticity consistent coefficient covariance, the final equations are as follows.

$$\begin{aligned}
 \text{OPM} = & 0.001448 - 0.0000451\text{RCP} + 0.000178\text{PDP} - 0.00000273\text{ICP} - 0.134447\text{CATAR} \\
 & (0.011963) \quad (0.709087) \quad (3.055382)** \quad (-0.139706) \quad (-3.526394)** \\
 & - 0.227493\text{CLTAR} + 0.227493\text{SG} + 0.036580\text{SIZE} \\
 & (-5.531894)** \quad (3.306692)** \quad (1.637267)
 \end{aligned}$$

$$\text{F-Statistic} = 19.21256$$

$$\text{Prob(F-Statistic)} = 0.000000$$

$$\text{R-Squared} = 0.315338$$

$$\text{t-Statistic} = \text{in parentheses}$$

$$** = \text{Statistical significance at 0.01 level}$$

From OPM equation, F-Statistic is 19.21256 and Prob(F-Statistic) is 0.000000, meaning that at least one independent variable significantly affects operating profit margin. R-Squared of 31.53% exhibits that all the independent variables in the model help explain the dependent variable 31.53%, the rest 68.47% can be explained by other factors. Referring to t-Statistics, which are numbers in parentheses, PDP, CATAR, CLTAR and SG significantly affect OPM at the 99 percent confidence level.

In addition to the statistically significant variables, the coefficient of PDP is 0.000178, meaning that, when other variables are constant, one-day change in

payables deferral period makes operating profit margin changes 0.0178% in the same direction. The coefficient of CATAR is – 0.134447, meaning that, when other variables are constant, one-unit change in current assets to total assets ratio makes operating profit margin changes 13.44% in the opposite direction. The coefficient of CLTAR is – 0.227493, meaning that, when other variables are constant, one-unit change in current liabilities to total assets ratio makes operating profit margin changes 22.75% in the opposite direction. The coefficient of SG is 0.227493, one-unit change in sales growth makes operating profit margin changes 22.75% in the same direction.

$$\begin{aligned} \text{NPM} = & 0.120557 - 0.0000687\text{RCP} + 0.000238\text{PDP} - 0.00000577\text{ICP} - 0.074746\text{CATAR} \\ & (1.310968) \quad (-1.083771) \quad (2.832775)** \quad (0.216160) \quad (-2.351069)* \\ & - 0.204462\text{CLTAR} + 0.052665\text{SG} + 0.006008\text{SIZE} \\ & (-7.136617)** \quad (1.294908) \quad (0.343622) \end{aligned}$$

F-Statistic = 30.50680

Prob(F-Statistic) = 0.000000

R-Squared = 0.422408

t-Statistic = in parentheses

\*\* = Statistical significance at 0.01 level

\* = Statistical significance at 0.05 level

From NPM equation, F-Statistic is 30.50680 and Prob(F-Statistic) is 0.000000, meaning that at least one independent variable significantly affects net profit margin. R-Squared of 42.24% exhibits that all the independent variables in the model help explain the dependent variable 42.24%, the rest 57.76% can be explained by other factors. Referring to t-Statistics, which are numbers in parentheses, PDP and CLTAR significantly affect NPM at the 99 percent

confidence level. Moreover, CATAR affects NPM at the 95 percent confidence level.

In addition to the statistically significant variables, the coefficient of PDP is 0.000238, meaning that, when other variables are constant, one-day change in payables deferral period makes operating profit margin changes 0.0238% in the same direction. The coefficient of CATAR is – 0.074746, meaning that, when other variables are constant, one-unit change in

current assets to total assets ratio makes operating profit margin changes 7.47% in the opposite direction. The coefficient of CLTAR is  $-0.204462$ , meaning that, when other variables are constant, one-unit change in current liabilities to total assets ratio makes operating profit margin changes 20.45% in the opposite direction.

## Conclusions and Discussions

This study examines the effect of working capital management on the profitability of SMEs in Thailand by using the multiple regression with ordinary least square. The quarterly financial data during 2011-2015 of 15 companies listed on the Market for Alternative Investment (mai) in the industrial industry group are used. Table 3 summarizes the results.

**Table 3** Summary of Results

	OPM	NPM
<b>Constant</b>	0.001448	0.120557
<b>RCP</b>	$-0.0000451$	$-0.0000687$
<b>PDP</b>	$0.000178^{**}$	$0.000238^{**}$
<b>ICP</b>	$-0.00000273$	$-0.00000577$
<b>CATAR</b>	$-0.134447^{**}$	$-0.074746^{*}$
<b>CLTAR</b>	$-0.227493^{**}$	$-0.227493^{**}$
<b>SG</b>	$0.227493^{**}$	0.052665
<b>SIZE</b>	0.036580	0.006008
<b>F-Statistic</b>	19.21256	30.50680
<b>R-Squared</b>	0.315338	0.422408

\*\* = Statistical significance at 0.01 level

\* = Statistical significance at 0.05 level

From Table 3, RCP, ICP, CATAR and CLTAR negatively associate with OPM and NPM. The more the receivables collection period, inventory collection period, current assets to total assets ratio and current liabilities to total assets ratio, the less is the operating profit margin as well as the net profit margin. However, only CATAR and CLTAR show the statistically significant effect. Furthermore, PDP, SG and SIZE positively relate to OPM and NPM. The more the payables deferral period, sales growth and log of sales, the more is the operating profit margin as well as the net profit margin. But, only PDP and SG indicate the statistically significant effect. The statistically significant variables can be discussed as below.

Payables deferral period (PDP) positively and significantly affects the profitability of SMEs in Thailand because SMEs that can negotiate the longer days of credit term from suppliers have fewer days in cash conversion cycle. Therefore, they will have less working capital shortage, and their short term financing cost will be lower, resulting in an increase in their profitability. This result is consistent with Garcia-Teruel and Martinez-Solano (2007), Nobanee et.al. (2011), Marttonen et.al. (2013), Pais and Gama (2015), Wasiuzzaman (2015), Lyngstadaas and Berg (2016), Singh et.al. (2017), Singhania and Mehta (2017), and Tran et.al. (2017).

Current assets to total assets ratio (CATAR) negatively and significantly affects the profitability of SMEs in Thailand because the average CATAR of these SMEs is 0.55, meaning that more than half of total assets are current assets. Also, the companies do not use the relaxed policy of working capital management because they cannot generate more profit while having a lot of current assets. On the other hand, they manage current assets inefficiently as shown in the very high receivables collection period (RCP) (mean = 250.47 days) and inventory conversion period (ICP) (mean = 260.13 days). This negative relation between current assets to total assets ratio and profitability is consistent with Tauringana and Afrifa (2013) as well as Afrifa and Padachi (2016).

The average current liabilities to total assets ratio (CLTAR) of these SMEs is 0.38, and their average total debt with interest obligation to total assets ratio is 0.44, meaning that most of their debt is short-term debt with interest obligation which leads to less profit. This finding is consistent with Garcia-Teruel and Martinez-Solano (2007), Abuzayed (2012), Tauringana and Afrifa (2013), Afrifa and Padachi (2016), Lyngstadaas and Berg (2016), Singhania and Mehta (2017), and Tran et.al. (2017).

Sales Growth (SG) positively and significantly affects the profitability of SMEs in Thailand because companies with an increase in sales can generate more profit, assuming an increase in sales is greater than an increase in all the

expenses. This positive relation between sales growth and profitability is consistent with Garcia-Teruel and Martinez-Solano (2007), Abuzayed (2012), Pais and Gama (2015), Lyngstadaas and Berg (2016), Singhania and Mehta (2017), and Tran et.al. (2017).

The results from this study are beneficial to SMEs in managing their working capital more efficiently so that they can earn more profit. First, SMEs should not only negotiate with suppliers to get longer days of credit term, but also maintain lower level of current assets compared to total assets by reducing receivables collection period and inventory conversion period. Consequently, their cash conversion cycle will decrease. In addition, SMEs should lessen current liabilities with interest obligation compared to total assets so that they will pay less interest and create more profit. Finally, SMEs should make continuous growth in sales by implementing attractive marketing strategies so that they can produce more profit. The findings of Thai SMEs also fulfill the literature in the area of working capital management in the emerging markets. Nevertheless, future research should study and compare the efficiency of working capital management of SMEs in other countries (both developed and developing). Hence, SMEs will have guidelines on how to manage their working capital in order to ensure adequate liquidity so that they will be able to survive in the extremely volatile and competitive business environment.

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## Guide for Authors

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